COTTAGE GROVE PLANNING COMMISSION January 22, 2024

- 7:00 PM

1. Call to Order
2. Roll Call
3. Approval of the Agenda
4. Open Forum
5. Chair's Explanation of the Hearing Process
6. Public Hearing and Applications
   - 6.1 Holcim 2024 Mining Permit - Case MP2024-002
     Discussion: Holcim MWR, Inc. has submitted their annual mining permit application to continue mining and processing aggregate materials in the Nelson Sand and Gravel Facility located at 11250 Grey Cloud Trail South.
   - 6.2 Discount Tire - Case CUP2024-001
     Discussion: Halle Properties, LLC applied for a conditional use permit (CUP) to utilize the existing building and site layout for a minor automobile repair use at 8647/8649 East Point Douglas Road South.
   - 6.3 Gerber Collision - Cases SP2024-005 & CUP2024-005
     Discussion: Gerber Collision & Glass, LLC has applied for a site plan review and conditional use permit to construct a 16,940 square foot auto collision and glass repair service at 7300 West Point Douglas Road South.
   - 6.4 Mississippi Landing - Case PP2024-004
     Discussion: Rachel Development, Inc. has applied for a preliminary plat to be called Mississippi Landing for a subdivision consisting of 377 single-family lots and 18 outlots that will be located on the former Mississippi Dunes Golf Course site.
7. Approval of Minutes
   - 7.1 Planning Commission Meeting - December 18, 2023
8. Staff Reports and Materials
   - 8.1 Recap - City Council Meetings
   - 8.2 Response - Planning Commission Inquiries
   - 8.3 Request - Planning Commission
9. Adjournment

STAFF REPORT CASE: MP2024-002

ITEM: 6.2

PUBLIC MEETING DATE: 1/22/24 **TENTATIVE COUNCIL REVIEW DATE: 2/7/24**

APPLICATION

APPLICANT: **Holcim – MWR, Inc.**

REQUEST: **2024 Mining Permit to continue their mining operations on Lower Grey Cloud Island (Nelson Mine).**

SITE DATA

LOCATION: **11250 Grey Cloud Trail South**

ZONING: **I-3, Commercial Excavation District**

GUIDED LAND USE: **Transition Planning Area**

LAND USE OF ADJACENT PROPERTIES:	**CURRENT**	**GUIDED**
NORTH:	**Mooers Lake**	**Mooers Lake**
EAST:	**Rural Residential**	**Rural Residential**
SOUTH:	**Mississippi River**	**Mississippi River**
WEST:	**Mississippi River**	**Mississippi River**

SIZE: **Stripping and Mining Area = approximately 5 acres**

DENSITY: **N/A**

RECOMMENDATION

Approval, subject to the conditions stipulated in this staff report.

COTTAGE GROVE PLANNING DIVISION

Planning Staff Contact: Mike Mrosla, Senior Planner; 651-458-2825; mmrosla@cottagegrovemn.gov

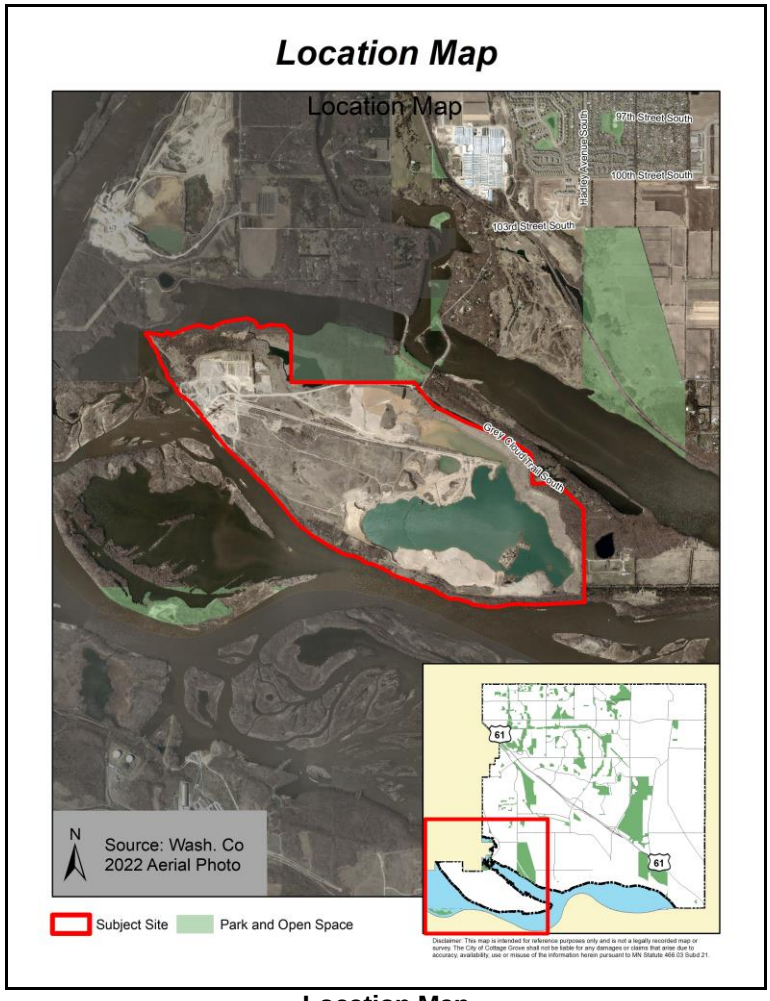
Application Accepted: 12/15/2023 60-Day Review Deadline: 2/13/2024

Planning Staff Report
Holcom MWR, Inc. – Annual Mining Permit
Planning Case No. MP2023-001
January 22, 2024

Proposal

Holcim MWR, Inc. (Applicant), formerly Aggregate Industries, has submitted their annual mining permit application to continue mining and processing aggregate materials in the Nelson Sand and Gravel Facility located at 11250 Grey Cloud Trail. The aggregate materials will be incorporated into various products in the Twin Cities metropolitan area and are used for ready mix concrete and/or asphalt in the construction of highways and buildings, etc. A copy of Nelson Sand & Gravel Plant 2024 Mining Plan is attached. The 2024 Mining Operations Plan proposes the following:

- Mining and processing approximately 700,000 to 750,000 tons of aggregate materials.
- Processing, washing, screening, and loading aggregate materials onto barges and trucks.
- Operating 24 hours per day seven days a week (Resolution 95-28).



Location Map

Review Process
Application Received: December 15, 2023
Acceptance of Completed Application: December 15, 2023
Tentative City Council Date: February 7, 2024
60-Day Review Deadline: February 13, 2024

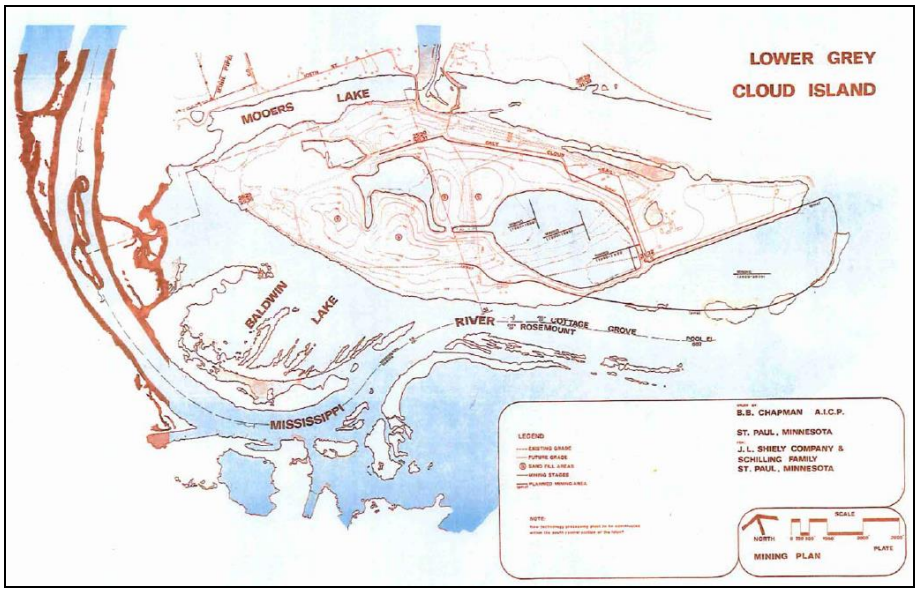
Ordinance Requirements

City Code Title 3-9 requires that an annual mining permit must be reviewed by the Planning Commission within 60 days after the completed application has been accepted by the City. The Planning Commission's recommendation is forwarded to the City Council for final action. The purpose of the annual mining permit is to:

- Ensure the restoration of the mined area is consistent with existing and planned land use patterns and to promote appropriate reuse of the mined areas.
- Ensure conformity of mining operations with the City's Critical Area and Comprehensive Plans.
- Control the effects of noise, dust, erosion, traffic, drainage, ground water pollution, and other factors related to mining in general.

Background

Mining at the existing Nelson Sand and Gravel Mine Facility has occurred since the early 1950s when the J.L. Shiely Company (now known as Holcim Industries) entered a lease agreement with the private landowner. A form of this lease agreement remains in place between the private landowner and Aggregate Industries today. On October 12, 1982, the Lower Grey Cloud Island Reclamation Concept Plan was approved by a City of Cottage Grove Reclamation Committee. A mining plan prepared by B.B. Chapman in 1982 is part of that document. A copy of this plan is shown below. With some exceptions, the proposed 2023 Operations Plan generally replicates landforms and topography as approved in 1982.



1982 Reclamation Plan

Mining Operations

Mining Operations consist of dredging to excavate raw aggregate materials. Dredging is used to reach sand reserves below the water surface. Its de-sanding capability and initial crusher that crushes rocks to smaller than six inches in size allows the operator to reclaim up to 400 tons of sand per hour without unnecessary re-handling. The dredge can mine 1,200 tons of aggregate material per hour at 60 feet below the water surface. After the material is excavated by the dredge, the mined aggregate is transported by a conveyor system that is about 2.2 miles long to the processing plant located at the northwest side of Lower Grey Cloud Island. The processing operations include crushing, washing, sorting, and stockpiling aggregate materials by size. These materials are then loaded onto barges or trucks. Most of the material is transported by barge up the Mississippi River to distribution yards in St. Paul.

In August 2023 the Applicant added a fully electric floating suction dredge that was is used to move waste sand overburden from an area which was previously mined in the 1970s to 1980s. The suction dredge has the ability to reach depths of 60 feet below water and will work in conjunction with the existing dredge. While the existing dredge will continue to mine material for processing and sale, the new suction dredge was used to solely pump a slurry of overburden sand and water away from the active mining area. The overburden sand moved by the suction dredge will be placed in areas to support the final reclamation of the site.

Annual Mining Report

In 2023, approximately 675,000 tons of aggregate were transported up the river while approximately 61,000 tons were transported by truck to local job sites.

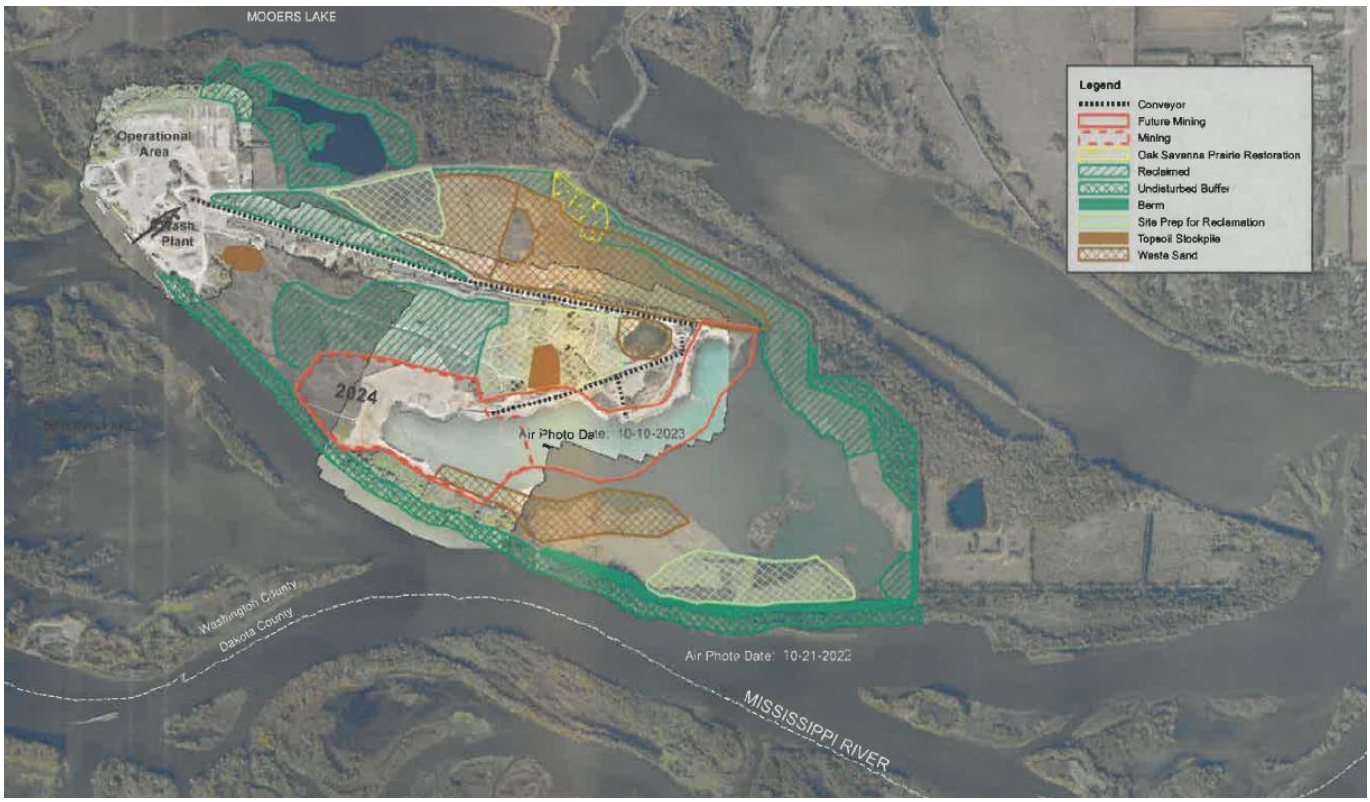
	2021	2022	2023
Estimated Tonnage Transported by Barge	721,500	607,000	675,000
Estimated Tonnage Truck Transportation	18,000	60,000	61,000

Planning Considerations

Proposed Mining Operations

The 2024 Operation Plan is shown below, and a copy is attached to this planning staff report.

2023-2024 Operations Plan



Proposed 2024 Operations Plan

As shown above, the proposed mining activity will be contained in the same area as the 2023 operation plan. The Applicant is proposing to export approximately 700,000 to 750,000 tons of material in 2024. Like previous operation plans, the applicant is required to take appropriate measures to ensure there is no erosion to stockpiles or earth-berms. At the base of each slope, a channel must be constructed to control runoff. The channeled water shall be diverted to a sedimentation basin before being allowed to enter any natural drainage system. Erosion control measures must be implemented within a reasonable amount of time for the stockpile and berm.

Environmental Impact Statement Process

The Applicant is in the process of working on an Environmental Impact Statement for proposed expansion of their mining operations in the Mississippi backwaters, located to the southeast of the existing facility.

Reclamation Plan

As of 2024, approximately 265 acres of the site have been reclaimed. The 2024 restoration plans include ongoing restoration efforts in creating a large lake and peninsula by providing shore stabilization/establishment and re-vegetation. Continued restoration in the areas of the oak grove/ savanna and prairie will continue to take place as depicted in the 2024 operations plan. The Applicant has partnered with the non-profit Great River Greening on their reclamation efforts. This spring the two parties will be developing a new work plan for the reclamation efforts. The Applicant also continued treatment of invasive Siberian Elm, Black Locust, and brush species. This treatment work took place in the previously reclaimed areas along the eastern perimeter of the site.

Nuisance Noise Complaints
The Public Safety Department reported that there were no noise complaints related to the 24-hour mining that occurred in 2023.

Meeting Notices
The meeting notice was mailed to 18 property owners who are within a half-mile of the mine on January 10, 2024. Staff have not received any comments at the time of writing this report.

City Department Review
Holcim's 2024 mining permit application was distributed to other City departments. No comments were received.

Recommendation

It is recommended that the 2024 Mining Permit for Holcim – MWR, Inc. – Nelson Sand and Gravel Facility located at 11250 Grey Cloud Trail be approved, subject to the following conditions:

1. The provisions as stipulated in Title 3, Chapter 9 of the City's Codes (Mining, Sand, and Gravel Operation) shall be complied with, except as modified below.

2. The applicant is responsible for removing any materials that their equipment and/or trucks may have spilled onto any public roadway. This material shall be cleaned up immediately.

3. The outer limits of their mining operations must be a minimum of 100 feet from abutting public right-of-way, private property, or any archeological sensitive area.

4. City approval of the 2024 Mining Permit does not approve their ability to mine within the required 200-foot setback from the Mississippi River, within the Mississippi River itself, or in the vicinity of archeological sensitive areas.

5. Bituminous/asphalt, concrete, and street sweepings originating within the geographical boundaries of Cottage Grove may be temporarily stockpiled on the site for processing (e.g., crushing, screening, etc.) and/or reuse. Bituminous/asphalt materials are prohibited from being buried on the premises.

6. The applicant may operate the mining operation 24 hours a day, 7 days a week. Upon notification by neighboring residents that the night-time operations (i.e., between the hours of 10:00 p.m. and 6:00 a.m.) are disturbing, the applicant agrees to voluntarily cease operation during night-time hours until such time the noise source is identified and appropriate corrections are made.

7. Holcim must install erosion control devices at the base of any slope where erosion is evident. A drainage swale must be constructed at the base of any eroding slope to control runoff and divert it to a sedimentation basin before entering any natural drainage system. Erosion control measures must be implemented within a reasonable amount of time.

8. Archeological and landmark sites as identified in the burial mound group known as 21WA9 and the recorded Grey Cloud Townsite 21WA48 on Lower Grey Cloud Island

must be protected and undisturbed and protected from being damaged or adversely impacted from vehicles or equipment traveling in the vicinity of these historic sites.

9. The applicant is responsible for obtaining all state and federal permits relating to their mining operations on Lower Grey Cloud Island.

10. The applicant's current reclamation plan is titled "Future Land Use Plan." The City has not provided any formal review or approval of the "Future Land Use Plan." This concept plan is only an illustration of a development concept that the applicant and landowner have considered. The City's approval of the 2024 Operations Plan does not guarantee approval or imply future approval of the Harbor Island Concept Plan or the Future Land Use Plan as dated July 18, 2017 and prepared by Westwood Professional Services.

11. The Oak Savanna Reclamation Plan, revised 9-3-2010, is still valid. All oak plantings that have not survived within the designated oak savanna groves must be replaced with new oak trees and watered during dry conditions to promote their survival. As the Oak Savanna Reclamation Plan is implemented, the applicant must continue to update the City on the effectiveness of the reclamation and restoration activities, particularly how many acorns are planted and how many oak seedlings are growing. If the survival number of trees is low, then another tree planting alternative will need to be discussed.

12. Depositing fill materials within the floodway and floodway fringe (below the 700-foot mean sea level elevation) is prohibited.

Prepared by:

Mike Mrosla
Senior Planner

Attachments:
A. 2024/25 Mining Plan

December 15, 2023

Ms. Emily Schmitz
Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

RE: Holcim – MWR, Inc. – Nelson Sand & Gravel Facility
2024 Mining Permit Application

Dear Emily:

Enclosed please find Holcim – MWR, Inc.'s 2024 Mining Permit Application, narrative and associated documentation for our Nelson Sand & Gravel facility located on Lower Grey Cloud Island. This permit application has been approved by a representative of Holcim – MWR, Inc., as well as Terry Gilberstadt of PAS Associates, Ltd.

It is our desire to have the Cottage Grove Planning Commission review this application at their meeting scheduled in January 2024, followed by the tentative City Council Meeting scheduled in February. Your confirmation of the dates of these meetings is appreciated.

Should you have any questions or require anything further, please contact me at (612) 214-8577 or via email at patty.bestler@holcim.com.

Sincerely,

Patty Bestler
Regional Manager, Environmental & Land Services
Holcim – MWR, Inc.

Enclosure(s)

cc: Mike Murphy – Holcim – MWR, Inc.
Joseph Neumann – Holcim – MWR, Inc.
Riley Rooney – City of Cottage Grove

Holcim – MWR, Inc.
Nelson Sand & Gravel
Cottage Grove, Minnesota

2024 Mining Plan

December 15, 2023

Holcim – MWR, Inc.
Nelson Sand & Gravel
11250 Grey Cloud Trail South
Cottage Grove, Minnesota

Property Legal Description

The NE ¼, SE 1/4, Section 31, Township 27, Range 21, South along Grey Cloud Trail; W ½, SE ¼, Section 31, Township 27, Range 21; E ½, NE ¼, NW ¼, Section 31, Township 27, Range 21, South along Grey Cloud Trail;W1/2, NE1/4, NW ¼, Section 31, Township 27, Range 21, South along Grey Cloud Trail; NW ¼, NW ¼, Section 31, Township 27, Range 21; S ½, NW ¼, Section 31, Township 27, Range 21; E ½, SW ¼, Section 31, Township 27, Range 21; Lot 1, Section 31, Township 27, Range 21; N ½, NE ¼, Section 36, Township 27, Range 22; S ½, NE ¼, Section 36, Township 27, Range 22; N ½, SE ¼, Section 36, Township 27, Range 22; Lot 2, Section 36, Township 27, Range 22; Lot 3, Section 36, Township 27, Range 22; SE ¼, SW ¼, Section 25, Township 27, Range 22; NE ¼, NW ¼, Section 36, Township 27, Range 22; S ½, NW ¼, Section 36, Township 27, Range 22; NW ¼, SW ¼, Section 36, Township 27, Range 22; N ½, SW ¼, SW ¼, Section 25, Township 27, Range 22; S ½, SW ¼, SW, ¼, Section 25, Township 27, Range 22; NW ¼, NW ¼, Section 36, Township 27, Range 22; NW ¼, SW ¼, Section 36, Township 27, Range 22; N ½, NE ¼, Section 35, Township 27, Range 22; S ½, NE ¼, Section 35, Township 27, Range 22; SE ¼, SE ¼, Section 26, Township 27, Range 22; Lot 5, Section 35, Township 27, Range 22; Lot 3, Section 6, Township 26, Range 21; Lot 2, Section 6, Township 26, Range 21; Lot 1, Section 6, Township 26, Range 21; N ½, NW ¼, Section 5, Township 26, Range 21; Lot 4, Section 5, Township 26, Range 21; Lot 3, Section 5, Township 26, Range 21; N ½, NE ¼, Section 5, Township 26, Range 21; Lot 2, Section 5, Township 26, Range 21; Lot 1, Section 5, Township 26, Range 21; Lot 1, Section 4, Township 26, Range 21; NE ¼ SW ¼ Sections 36, Township 27, Range 22; Lot 5 Section 35, Township 27, Range 22

Landowner: PAS Associates, Ltd.
ATTN: Terry Gilberstadt
2565 Walnut Street
Roseville, MN 55113

Operator: Holcim – MWR, Inc.
ATTN: Patty Bestler
2815 Dodd Road, Suite 101
Eagan, MN 55121

Adjacent Landowners

PAS Associates Ltd. Partnership	12075 Grey Cloud Trail South	Cottage Grove
Terryl & Dave Gilberstadt	12085 Grey Cloud Trail South	Cottage Grove
Washington County	11395 Grey Cloud Trail South	Cottage Grove
North Central District Pentascostal	11975 Grey Cloud Trail South	Cottage Grove
Boggie, Jr., Richard	11971 Grey Cloud Trail South	Cottage Grove
Hale, Rod & Mary	11701 Grey Cloud Trail South	Cottage Grove
Washington County	11523 Grey Cloud Trail South	Cottage Grove
LaChapelle, Nanette	11973 Grey Cloud Trail South	Cottage Grove
Madsen, Fred & Karter, Katrina	10971 Grey Cloud Trail South	Cottage Grove
Maloney, Ryan & Kate	11881 Grey Cloud Trail South	Cottage Grove
Washington County	11500 Grey Cloud Trail South	Cottage Grove

Mining Operations

Holcim – MWR, Inc.'s (formerly Aggregate Industries) Nelson Sand & Gravel Facility excavates and processes aggregate materials which are utilized for ready mix concrete and/or asphalt products for the construction of various infrastructure projects within the Twin Cities metropolitan area.

The Company currently estimates that mining will continue for another three to five years. These estimate are based on current information and are subject to market trends, geologic variations and the expansion of reserves, as additional exploration occurs. At this time, the Company is in the process of working on an Environmental Impact Statement for their proposed mining in the Mississippi backwaters, located to the southeast of the existing facility.

The dredge at this facility will continue to carry out the mining into the foreseeable future. On the dredge the material is initially crushed into smaller than 6 inches in size and the excess sand is then screened off and pumped to the south shoreline or into the deepest part of the excavation for reclamation. The coarse aggregate blend is then conveyed to the processing plant where it is crushed, washed, sorted by size and loaded onto barges. The Plant is expected to produce approximately 700,000 to 750,000 tons of aggregate material in 2024.

A DRAGA 2030 fully electric floating suction dredge was put in place in August, 2023. This suction dredge will be utilized to move waste sand overburden from an area which was previously mined in the 1970's – 1980's. The suction dredge has the ability to reach depths of 60 feet below water and will work in conjunction with the existing clamshell dredge. While the existing clamshell dredge will continue to mine material for processing and sale, the new suction dredge will be used solely to pump a slurry of overburden sand and water away from the active mining area. The overburden sand moved by the suction dredge will be placed in areas to support the final reclamation of the site.

The majority of the material from the Nelson Sand & Gravel facility is transported by barge up the Mississippi River to the Company's distribution yard in St. Paul. At the time of this application submittal, roughly 675,000 tons of aggregate were transported by barge. In addition, roughly 61,000 tons were transported by truck to local jobsites.

The Company has mined around and past the area that was thought to have the greatest potential as the site of the historic town site *Town Site 21WA48*. As mining progresses to the west, the area that is identified as the *Burial Mound Group 21WA9* will be left undisturbed.

Reclamation

The 2024 Operations Plan shows the area where the former St Croix Crossing Casting Plant and yard was located as "Operational Area." That area will not be reclaimed for several years. It will be utilized for additional product storage and will be filled with 3 to 5 feet of waste sand or dredge sand before it is ultimately reclaimed. The 2024 Operations Plan depicts roughly 265 acres which have been reclaimed to date.

The Landowner's current plans for reclamation of Lower Grey Cloud Island are depicted on the "Lower Grey Cloud Island Plan" prepared by Westwood Professional Services. This concept plan proposes a planned unit development of mixed residential, commercial and marina uses. The Company's reclamation efforts will follow this concept in general terms.

Waste sand will continue to be placed in the area north of the conveyor for the next several years until that area can be contoured to blend with the high ground to the north and east. That area will be sloped gradually from northeast to southwest at an elevation substantially above the 100-year flood plain.

Since 2010 the Company has been working towards the re-establishment of an Oak Savanna and a prairie area at the Nelson facility. The Company continues to work with Great River Greening with these reclamation efforts. Annual contributions have included and will continue to include: soil preparation, native grass seeding, oak plantings, herbicide treatment of non-native vegetation, brush and tree removal of non-native woody species and maintenance burns.

In 2020, a new oak grove was established in the area located northeast of the waste sand area as depicted on the 2024 Operations Plan. Additional oak trees were planted in this area and maintenance work continues for these plantings. This oak grove replaced the former Interlachen Prairie area which was located within the waste sand area.

Foliar treatment of invasive Siberian Elm, Black Locust and brush has also continued the last several years. This foliar treatment work took place in the previously reclaimed area along the eastern perimeter of the site.

A work plan will be developed in the spring of 2024, based upon the recommendations from Great River Greening.

Acknowledgement and Signature: **Holcim – MWR, Inc.**, as the Mining Operator, hereby represents upon all of the penalties of the law, for the purpose of inducing the City of Cottage Grove to grant an Annual Mining Permit, that all the statements are true and that all work will be done in accordance with the ordinance of the City of Cottage Grove and the laws of the State of Minnesota.

Holcim – MWR, Inc.

By: Patty Beatty Dated: 12/15/23

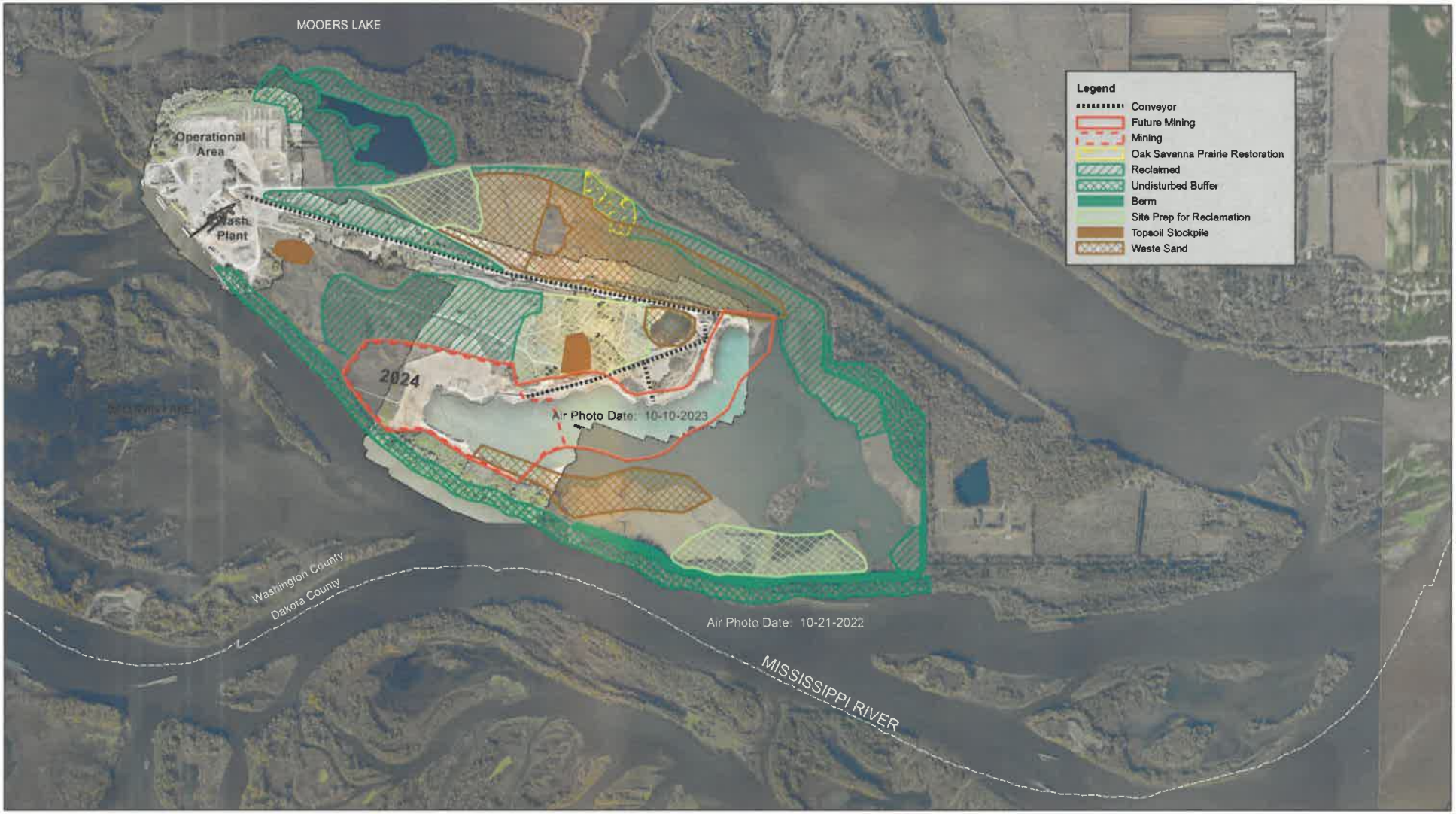
Its: Regional Manager Environmental + Land Services

Acknowledgment and Signature: **PAS Associates, LTD**, as Landowner, hereby consents to the 2024 Operations Plan, as represented by Holcim – MWR, Inc.

PAS Associates, LTD

By: Terry S. Gillerstad Dated: Dec 14, 2023

Its: Mg. Gen Partner



AGGREGATE INDUSTRIES-NELSON PLANT

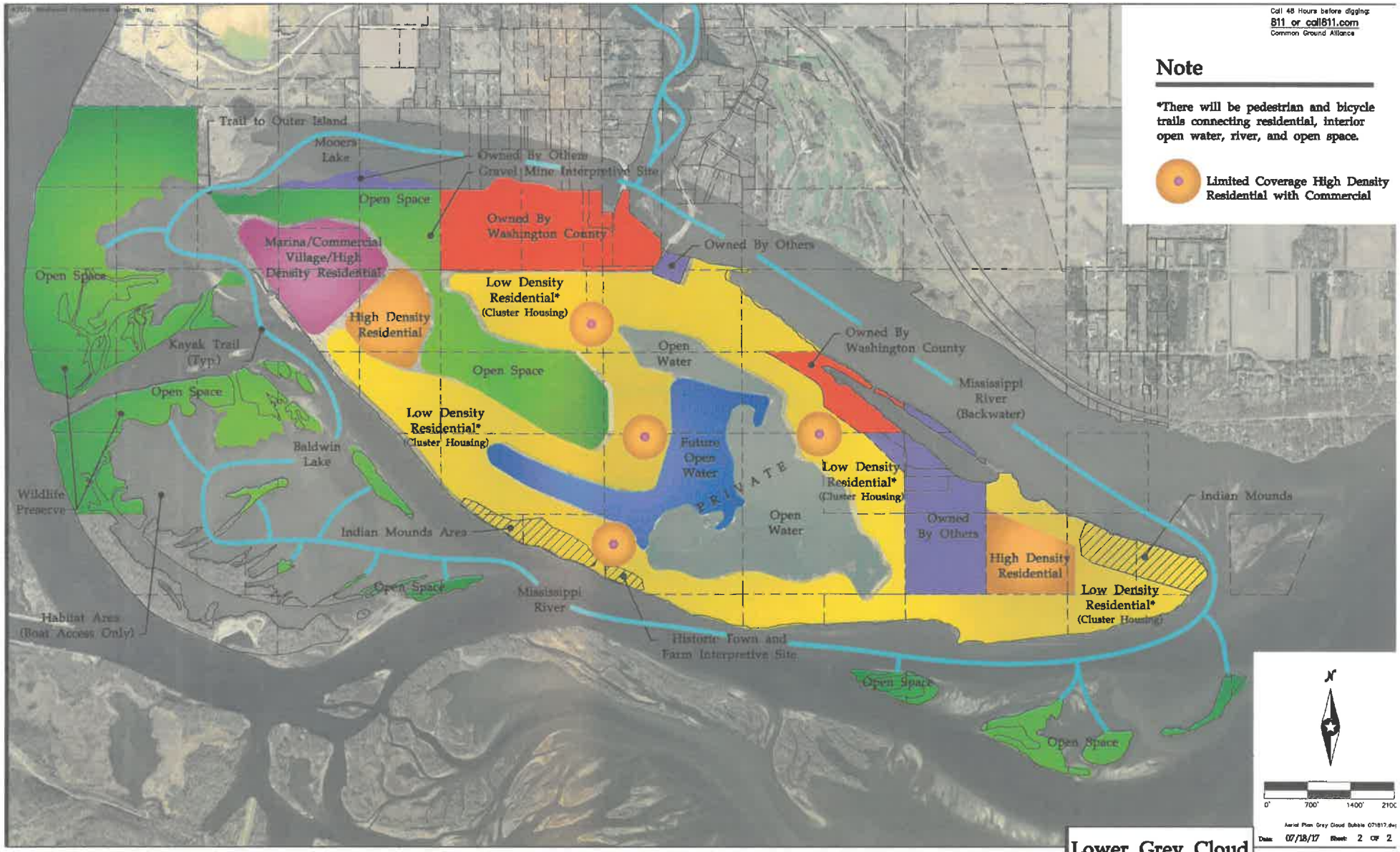
2024 OPERATIONS PLAN

CITY OF COTTAGE GROVE, WASHINGTON COUNTY, MN

HOLCIM

0 1,200 2,400 Feet

N



Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

Note

*There will be pedestrian and bicycle trails connecting residential, interior open water, river, and open space.

Limited Coverage High Density Residential with Commercial

Aerial Plan Grey Cloud Bubble 071817.dwg
Date: 07/18/17 Sheet: 2 OF 2

Westwood

Prepared for:
PAS Associates Limited Partnership

Lower Grey Cloud Island

Cottage Grove, Minnesota

Bubble Diagram
Land Use Plan

STAFF REPORT CASE: CUP2024-001

ITEM: 6.1

PUBLIC MEETING DATE: 2/27/23 TENTATIVE COUNCIL REVIEW DATE: 3/15/23

APPLICATION

APPLICANT: Halle Properties, LLC, on behalf of NTW, LLC

REQUEST: A Conditional Use Permit (CUP) to utilize the existing building and site layout for a minor automobile repair use for Discount Tire.

SITE DATA

LOCATION: 8647 and 8649 East Point Douglas Road South

ZONING: MU, Mixed Use

GUIDED LAND USE: Mixed Use within 300 Feet of Arterial Roadways

LAND USE OF ADJACENT PROPERTIES:	CURRENT	GUIDED
NORTH:	Commercial	Mixed Use within 300 feet
EAST:	Commercial	Mixed Use within 300 feet
SOUTH:	Highway 61	Highway 61
WEST:	Commercial	Mixed Use within 300 feet

SIZE: Building = 5,160 square feet

DENSITY: N/A

RECOMMENDATION

Approval, subject to the conditions stipulated in this staff report.

COTTAGE GROVE PLANNING DIVISION

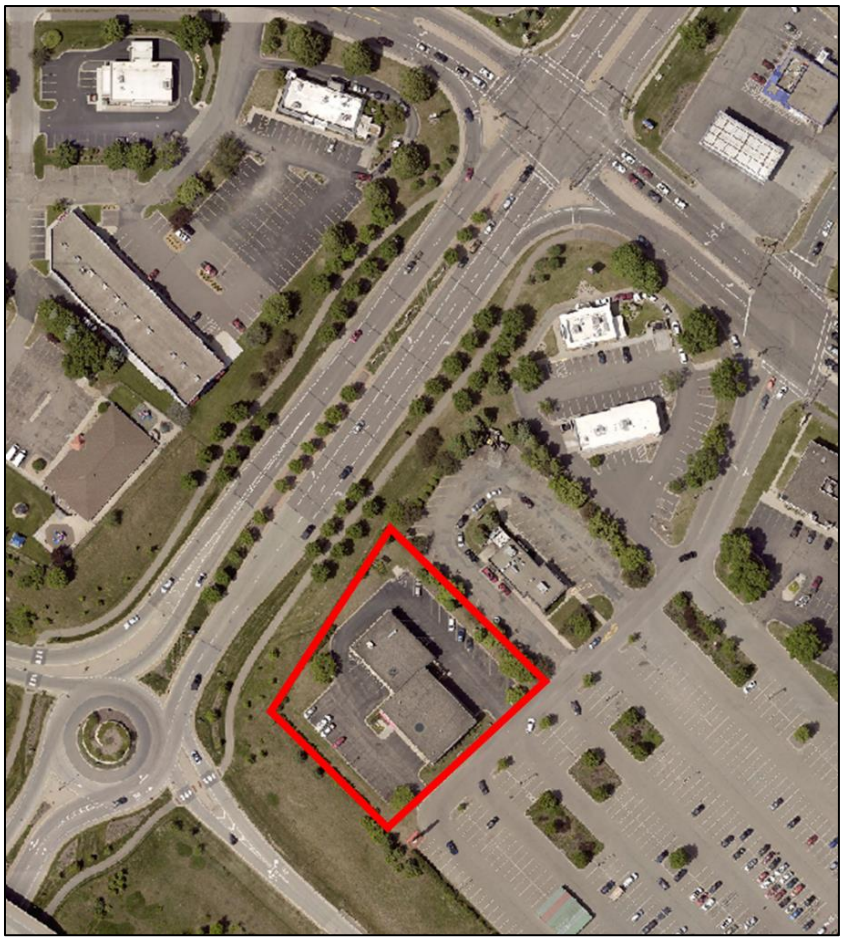
Planning Staff Contact: Conner Jakes, Associate Planner; 651-458-2868; cjakes@cottagegrovemn.gov

Application Accepted: 12/12/2024 60-Day Review Deadline: 2/10/2024

Planning Staff Report
Discount Tire
Planning Case No. CUP2024-001
January 22, 2024

Introduction

Halle Properties, LLC (Applicant) has submitted an application for a Conditional Use Permit (CUP) at 8647/8649 East Point Douglas Road South. The Applicant is proposing to utilize the existing building and site layout for a minor automobile repair use onsite. The proposed project is located on a .98-acre parcel of land to the southwest of the current Wendy's restaurant and northwest of the current Target site.



Site Location

Review Schedule

Application Received: December 12, 2023
Application Accepted: December 12, 2023
Planning Commission Meeting: January 22, 2024
Tentative City Council Meeting: February 7, 2024
60-Day Review Deadline: February 10, 2024

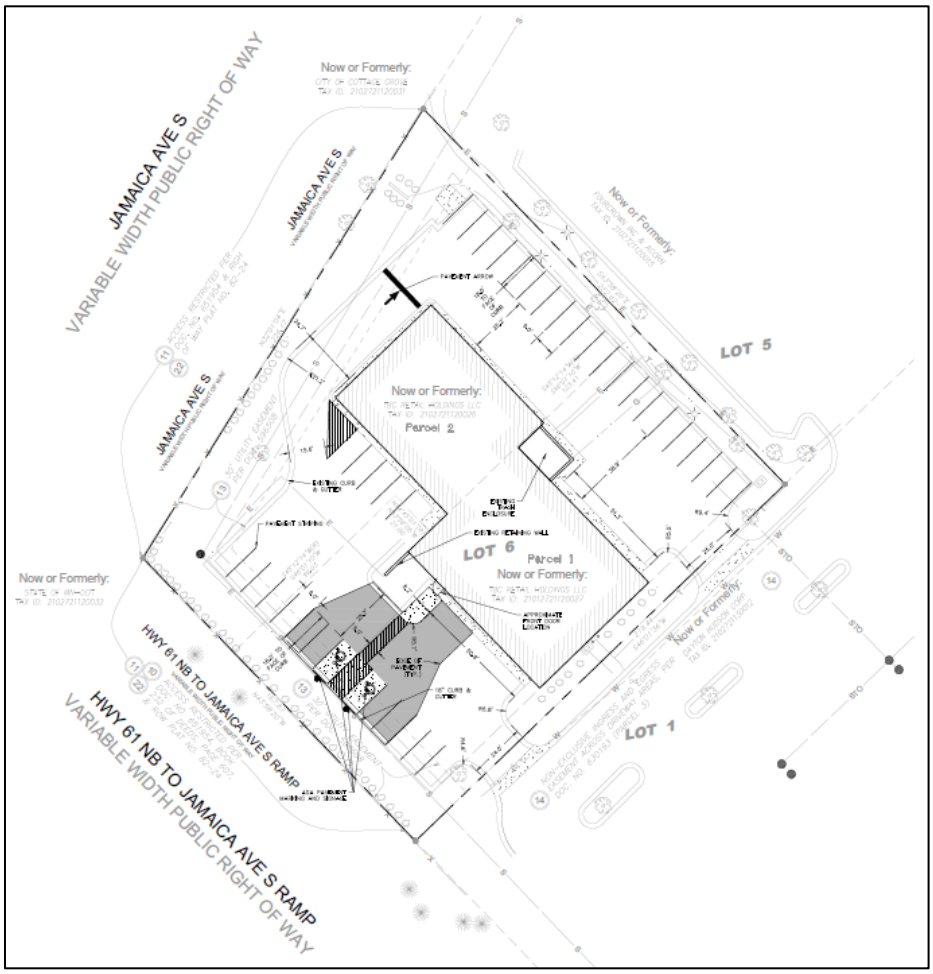
Background

The subject site has been occupied by an automotive repair use since the original approvals in 1991 and was most recently occupied by Big O Tires. In 1992 an application for a simple lot division was submitted and approved. The intent at the time was to create two parcels allowing the user to separate the automotive use from potential office space for additional tenants. However, the entire site has been most recently occupied by one tenant and the only onsite use was automotive repair. Approvals for an automobile car wash were granted in March of 2023; however, the applicant for the automobile car wash withdrew the application. A condition of approval will require the two lots be combined into one lot.

2022 Aerial Photo

Proposal

The Applicant is proposing to utilize the existing building and site layout for a minor automotive repair use with updates to the architectural elevations, parking lot stalls, and site landscaping. Daily activities onsite include only the selling, installing, and servicing of tires and wheels. There will not be automotive repair, oil changes, or any body work occurring onsite as the focus of the business is solely on tires. The proposed hours of operation are Monday through Friday from 8am to 6pm, and Saturday from 8am to 5pm.



Proposed Site Plan

Planning Considerations

Zoning and Comprehensive Plan

The subject site is zoned MU, Mixed-Use District, and is guided as Mixed Use in the 2040 Comprehensive Plan. The proposed use is consistent with the City's zoning ordinance and land use plan. Minor automobile repair uses are permitted with a Conditional Use Permit (CUP) within the Mixed-Use Zoning District.

Conditional Use Permit

City Code requires a CUP for a minor automotive repair use within the Mixed-Use District. The Applicant is proposing to operate a minor automotive repair use solely focused on selling, installing, and servicing tires. The criteria for issuance of a CUP are as follows:

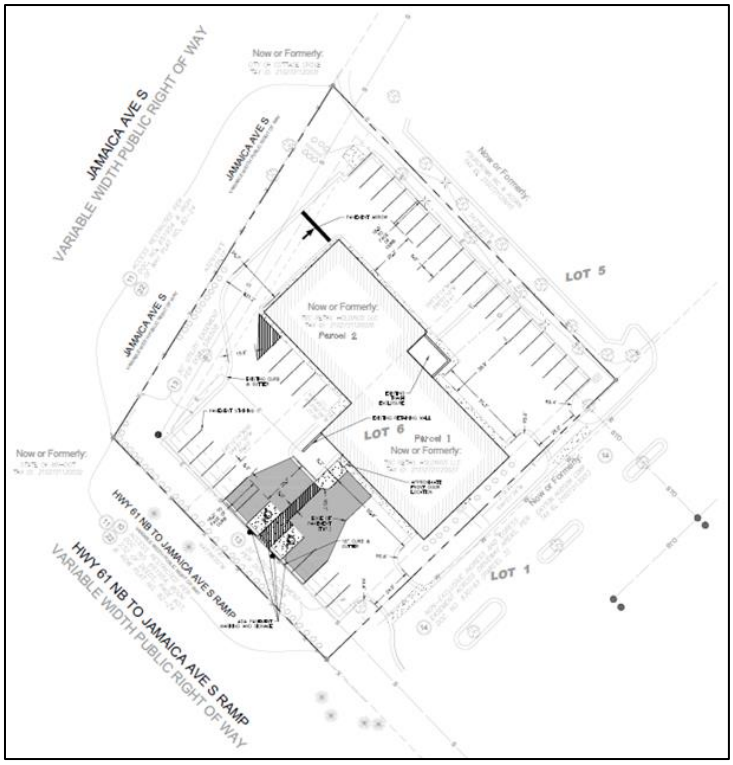
1. *The proposed use shall be consistent with the Comprehensive Plan.*
2. *The proposed use shall not negatively impact the health, safety and general welfare of occupants of surrounding lands.*
3. *Adequate public facilities and services shall be able to be provided to the site where the use is proposed, and/or existing infrastructure shall be able to absorb the additional demand for public services such as utilities, streets, parks, schools, etc.*

4. *Incompatible impacts of the proposed use shall be screened and buffered from adjacent property and the surrounding neighborhood. The City Council may require additional landscaping or screening above that required in the Zoning Code.*
5. *The site or building associated with the proposed use meets or exceeds the architectural design and landscaping standards for the district in which it is located. The City Council may require additional architectural standards above those required in the Zoning Code.*
6. *The use is consistent with the purposes of the Zoning Code and the purposes of the zoning district in which the applicant intends to locate the proposed use.*
7. *The generation and characteristics of traffic associated with the use and its impact on traffic volumes and safety associated with driveway locations, existing and proposed capacity on adjacent roads, sidewalks, and trail connections can be adequately mitigated.*
8. *Floodplain standards shall follow City Code Title 11, Chapter 10.*

Upon review of the application, the proposed use meets the forementioned criteria.

Parking

City Code Title 11-3-4 states that auto repair uses require 3 parking stalls per auto bay, plus 1 parking stall per employee. The Applicant has indicated a total of 4 auto bays and staffing of 15 employees; therefore, the minimum number of required stalls is 27. The proposed site plan indicates a total of 38 parking stalls, thus meeting the minimum required number of stalls. The existing parking lot layout consists of 34 total stalls. The Applicant is proposing to restripe the parking lot, which will result in an increase in the number of stalls by 4. This is due to the change of diagonal stalls to straight stalls along the northeastern property line.

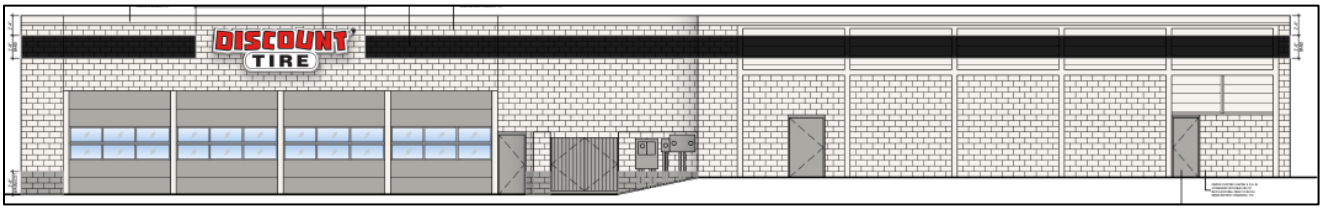


Proposed Site Plan with Updated Parking Stall Striping

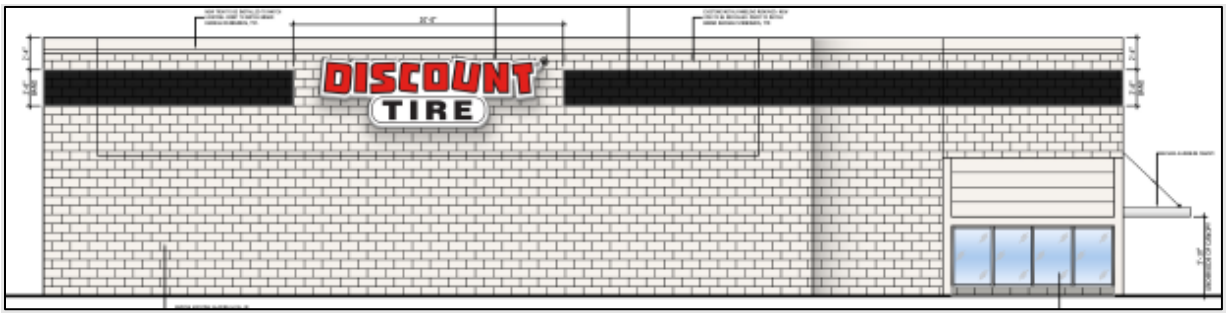
Architecture

The Applicant is proposing to utilize the existing building but will provide minor architectural elevation updates. These updates include new paint, trim, and an updated storefront with a metal canopy overhang.

Southwest Building Elevation



Northeast Building Elevation

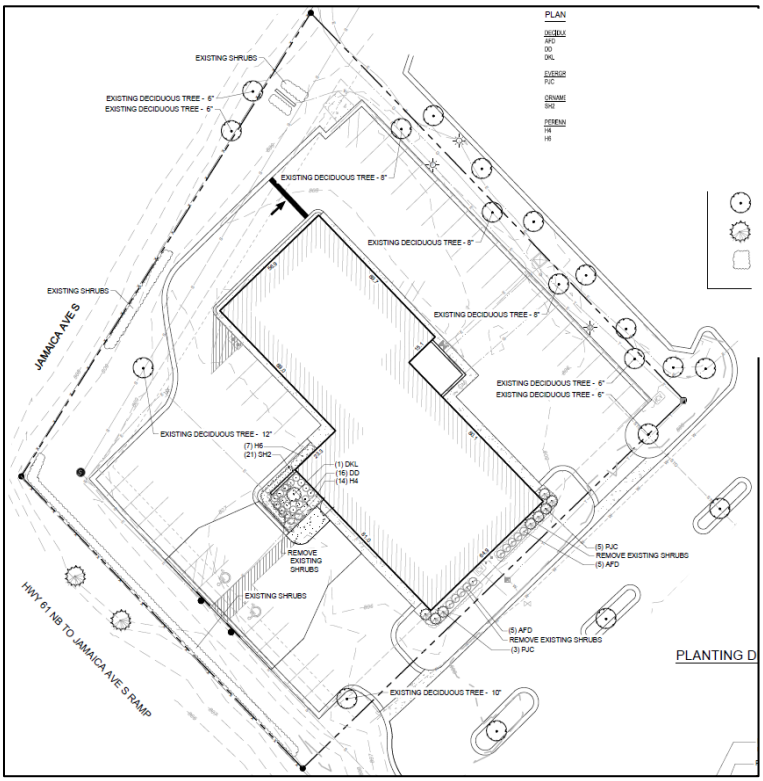


Southeast Building Elevation

Northwest Building Elevation

Landscaping

The Applicant is proposing to utilize the existing site layout but has submitted a detailed landscape plan. The plan indicates the planting of 35 shrubs, 21 ornamental grasses, and 21 perennials. In addition, the Applicant has indicated the intent to preserve existing trees onsite that are in good health.



Landscape Plan

Utilities

The subject property is located within the Metropolitan Urban Service Area (MUSA). The property is already connected to City utilities and no changes are being proposed for utility connections on the site.

Surface Water Management/Grading

The site is currently graded to meet the surface water management requirements established by the State, Watershed District, and the City's Surface Water Management Plan. No changes are proposed to site grading or site imperviousness therefore changes to site stormwater management are unnecessary.

Development Fees

All applicable development fees have been paid at the time of original development; therefore, no additional development fees are required as part of this proposal.

Public Hearing Notices

The public hearing notice for the November 27, 2023, Planning Commission meeting was published in the *Saint Paul Pioneer Press* and mailed on January 10, 2024, to 13 property owners that are within 500 feet of the proposed project. Staff has not received any comments at the time of writing the report.

Recommendation

That the Planning Commission recommend that the City Council approve the Conditional Use Permit for a minor automotive repair use to be located at 8647/8649 East Point Douglas Road South subject to the following conditions:

1. The project shall be completed in accordance with the plans submitted as amended by the conditions of approval. Any significant changes to the plans, as determined by the planning staff, shall require review and approval by the Planning Commission and City Council.

2. The Conditional Use Permit approvals shall expire one (1) year from the date of City Council approval unless a building permit has been requested or a time extension has been granted by the City Council. The City Council may extend the expiration date of such approval upon written application by the person to whom the approval was granted.

3. Prior to the issuance of a building permit, the two lots shall be combined, and a copy of the executed lot combination supplied to the City.

4. All applicable permits (i.e.; building, electrical, grading, right of way and mechanical) and a commercial plan review packet must be completed, submitted, and approved by the City prior to the commencement of any construction activities. Detailed construction plans must be reviewed and approved by the Building Official and Fire Marshal.

5. The grading and erosion control plan for the site must comply with NPDES II Permit requirements. Erosion control devices must be installed prior to commencement of any grading activity. Erosion control must be performed in accordance with the recommended practices of the “Minnesota Construction Site Erosion and Sediment Control Planning Handbook” and the conditions stipulated in Title 9-7-1, Erosion Control During Construction, of the City’s Subdivision Ordinance. The Applicant shall be responsible for the costs for the City to inspect the site in relation to erosion control conformance.

6. Rubbish, waste, and recycling containers shall be stored within an appropriately sized enclosed structure compliant with City ordinance screening requirements and shall always be maintained so as not cause odors or other public nuisances.

7. The Applicant is responsible for removing debris from all adjacent public and private roadways during their grading and construction process. The adjacent streets shall be swept clean daily or as needed.

8. Signage is not approved as part of this application. All signage shall meet the requirements of the sign ordinance and require a separate building permit.

9. Exterior storage of tires, wheels, and other items/materials is prohibited.

10. An ingress and egress easement shall be maintained at all times between property owners to allow for access to the site.

Prepared by
Conner Jakes
Associate Planner

Attachments
Narrative
Architectural Elevations
Engineering Plans

raSmith

CREATIVITY BEYOND ENGINEERING

R.A. Smith, Inc.
1245 East Diehl Road, Suite 102
Naperville, IL 60563-4816
(630) 405-5722 | rasmith.com

November 1, 2023

On behalf of Halle Properties, L.L.C., R.A. Smith, Inc. is pleased to present the attached material for a Conditional Use Permit for a Discount Tire store to be located at 8647 & 8649 East Point Douglas Road South. A Conditional Use Permit is required for the operation of a tire store.

The exiting building is a former Big O's tire store, roughly 9,212 square feet in size. Discount Tire proposes to reimage the building to its current corporate standards. New signage, fresh coat of paint on the exterior and considerable work on the interior. New tire storage will be indoors via a racking system adjacent to the service bays. Used tire storage is segregated in its own storage area and no tires are stored outside. Generally new tires are delivered twice a week via a tractor trailer, and used tires are removed twice a week by a local recycling contractor using a box truck.

Discount Tire only sells, installs and services tires and wheels. No automotive repair, oil changes or body work is ever done at a Discount Tire location. The focus is solely on tires, wheels and world class customer service. As a benefit to the general public, this store will provide complimentary air checks for any driver who pulls in and requests the service.

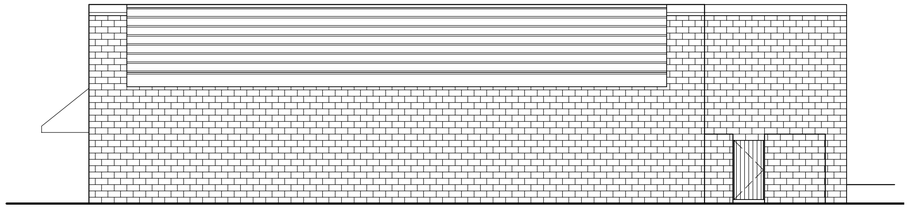
This location that Halle Properties has selected meets their internal site selection criteria and will be complimentary to nearby commercial developments. With limited business hours and low traffic volumes, open Monday to Friday from 8 AM to 6 PM and Saturday from 8 AM to 5 PM, it's anticipated that the proposed store will not have a negative impact on traffic.

Staffing for this store is typically 6-8 sales/managerial and 8-12 technicians, with the busiest shifts being on Friday and Saturday. The site is designed to accommodate employee vehicles as well as those of customers dropping their vehicles off for service and those who elect to wait to have their tires installed.

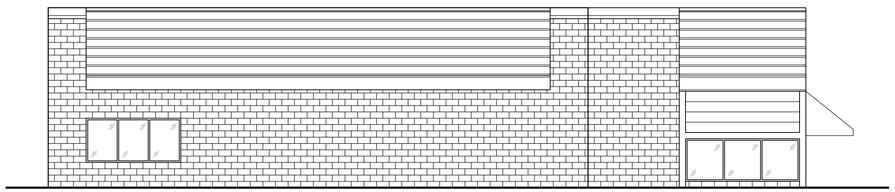
At your convenience, R.A. Smith will be more than happy to answer any questions or comments.

Respectfully,

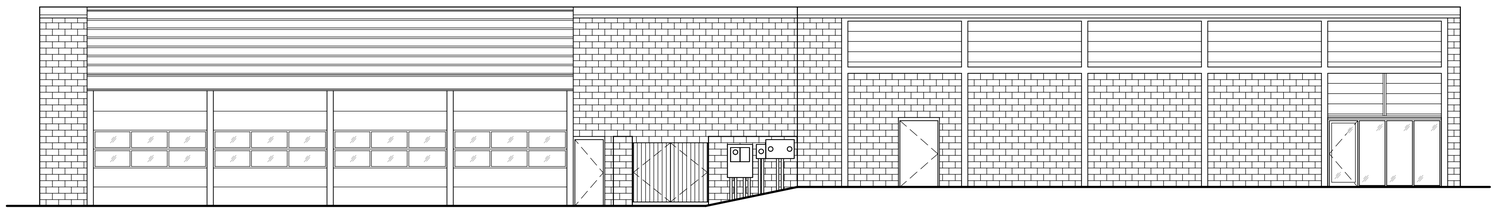
Steven McCleary
Site Development Specialist



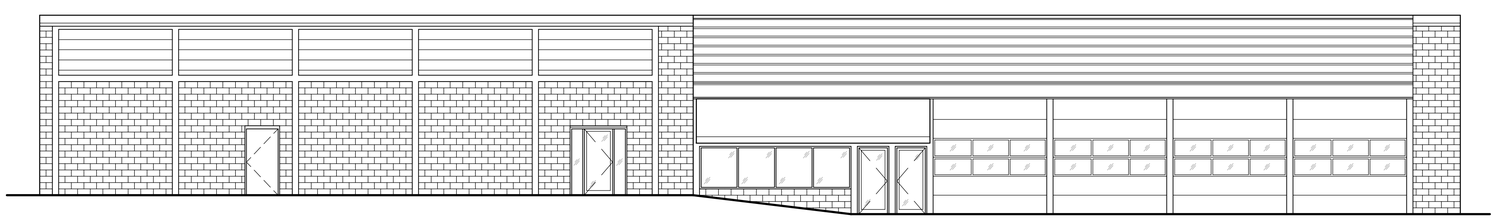
5 EXISTING NORTH ELEVATION
1/8" = 1'-0"



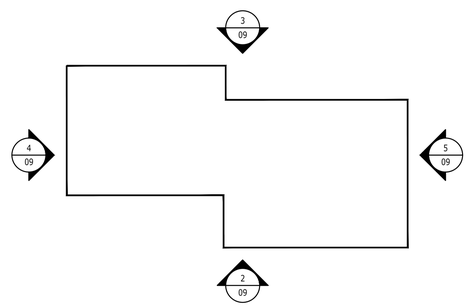
4 EXISTING SOUTH ELEVATION
1/8" = 1'-0"



3 EXISTING EAST ELEVATION
1/8" = 1'-0"



2 EXISTING WEST ELEVATION
1/8" = 1'-0"



1 ELEVATION KEY PLAN
N.T.S.

NORTH

Design Forum Architects Inc.
2056 BYERS RD
Miamisburg, OH 45342
Tel: (844) 804-7700
Donald J. Rethman
Architect In Charge
License: xxxx

DISCOUNT TIRE

MTM 13043
8647 E Point Douglas Road S
Cottage Grove, MN 55016

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NOT FOR CONSTRUCTION

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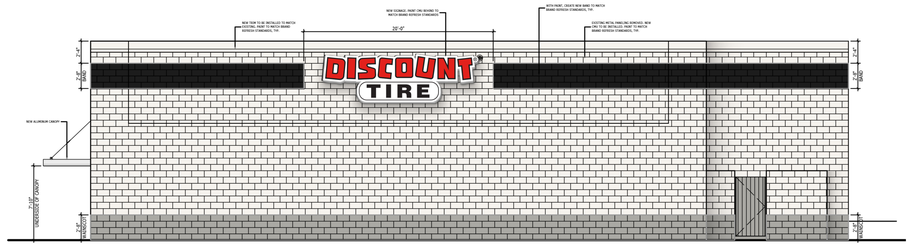
No.	Description	Date

PROJECT NUMBER	DTXXXXX
DATE	10/25/2023
DRAWN BY	DL
CHECKED BY	XXX / XXX

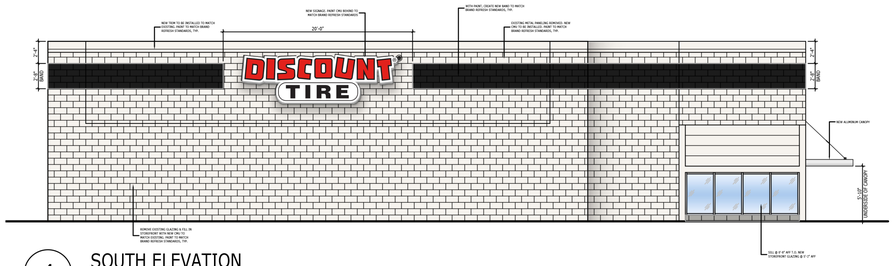
SHEET NAME
EXISTING EXTERIOR ELEVATIONS

SHEET #
01



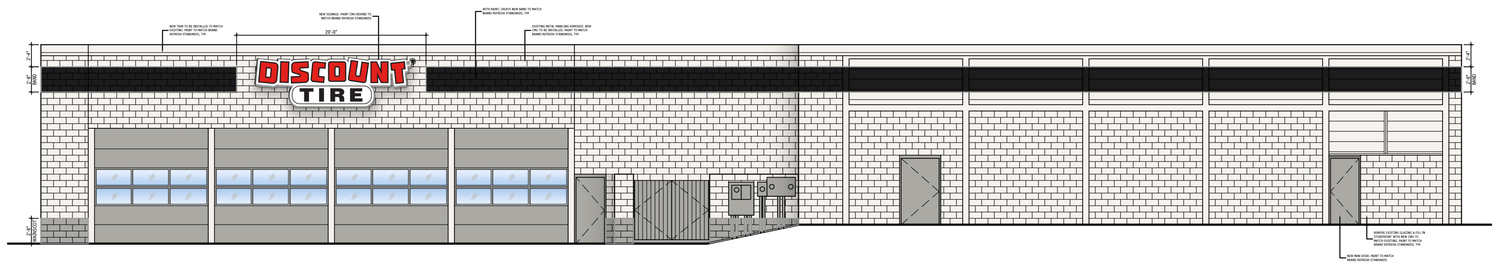
5 NORTH ELEVATION

1/8" = 1'-0"



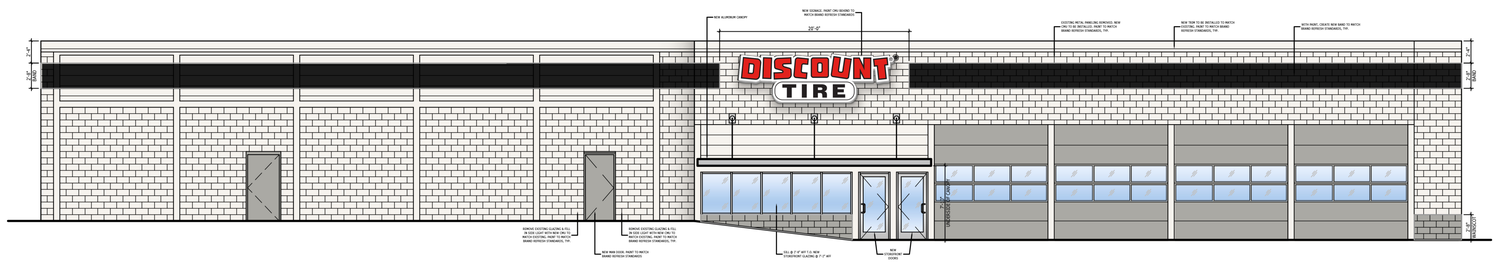
4 SOUTH ELEVATION

1/8" = 1'-0"



3 EAST ELEVATION

1/8" = 1'-0"



2 WEST ELEVATION

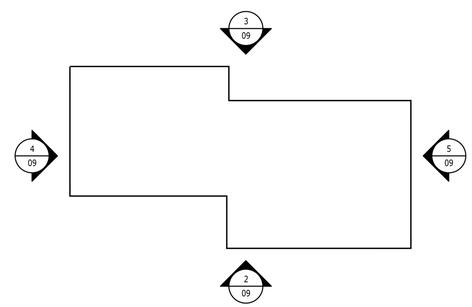
1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE

	CODE	MATERIAL	MANUFACTURER	PRODUCT / COLOR	LOCATION
	CLAD-1	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BONE WHITE	EXTERIOR - FRAME
	CLAD-1A	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE OYSTER (ALTERNATE)	EXTERIOR - FRAME
	CLAD-2	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE PATRIOT RED	EXTERIOR - FRAME
	CLAD-3	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BRUSHED STAINLESS	EXTERIOR - CANOPY
	CLAD-4	CORRUGATED METAL	ATLAS INTERNATIONAL	CORRUGATED PANEL, R 40 ALUMINUM, BLACK (02)	EXTERIOR
	P-1	PAINT	SHERWIN WILLIAMS	PAINT / SW 7650 ELLIE GRAY; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-1A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7504 KEYSTONE GRAY; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	P-2	PAINT	SHERWIN WILLIAMS	PAINT / SW 7104 COTTON WHITE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-2A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7568 NEUTRAL GROUND (LRV 70); EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	P-9	PAINT	SHERWIN WILLIAMS	PAINT / SW 6258 TRICORN BLACK; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-9A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7069 IRON ORE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	TRIM-1	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; MATCH SW 7104 COTTON WHITE, OR ALTERNATE COLOR OF MASONRY BELOW	EXTERIOR - PARAPET CAP
	TRIM-2	CORRUGATED METAL TRIM	ATLAS INTERNATIONAL	ELITE TRIM SERIES; BLACK (02)	EXTERIOR
	TRIM-3	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; BLACK (02)	EXTERIOR - PARAPET CAP
	TRIM-4	METAL TRIM	LONGBOARD PRODUCTS	9" LINK & LOCK SERIES; SLATE GREY	EXTERIOR - WALL TRIM

SHEET NOTES

1. MAINTAIN EXISTING EIFS, CMU, AND/OR OTHER BUILDING MATERIAL, UNLESS OTHERWISE NOTED. PAINT AS INDICATED TO MATCH BRAND REFRESH STANDARDS
2. NEW SIGNAGE TO BE INSTALLED
3. EXISTING OVERHANG AND/OR CANOPY TO BE REMOVED. UPDATE AND PAINT AS INDICATED
4. NEW ALUMINUM CANOPY TO BE INSTALLED
5. NEW STOREFRONT TO BE INSTALLED



1 ELEVATION KEY PLAN

N.T.S.

NORTH

Design Forum Architects Inc.

2056 BYERS RD
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Tel: (844) 804-7700

Donald J. Rethman
Architect In Charge
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MTM 13043
8647 E Point Douglas Road S
Cottage Grove, MN 55016

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NOT FOR CONSTRUCTION

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No.	Description	Date

PROJECT NUMBER	DTXXXXX
DATE	10/25/2023
DRAWN BY	DL
CHECKED BY	XXX / XXX

SHEET NAME

EXTERIOR ELEVATIONS

SHEET #

09

CIVIL ENGINEER/LANDSCAPE ARCHITECT:

raSmith
CREATIVITY BEYOND ENGINEERING

16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

PROJECT MANAGER: ROBERT J. HARLEY
262-317-3266

PROJECT ENGINEER: CHRISTOPHER B. WHITE, P.E.
262-317-3286

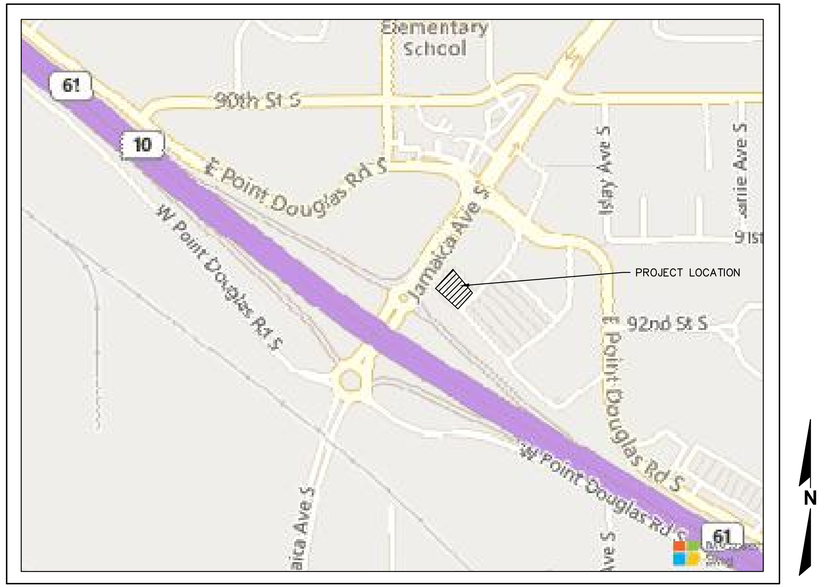
LANDSCAPE ARCHITECT: NANCY PARDUHN WILSON
262-317-3343

DISCOUNT TIRE

8647 E. POINT DOUGLAS ROAD
COTTAGE GROVE, MN 55016

ENGINEERING PLANS

VICINITY MAP



PLAN INDEX

SHEET NO.	DESCRIPTION
C000	TITLE SHEET
---	ALTA/NSPS LAND TITLE SURVEY
C100	DEMOLITION AND EROSION CONTROL PLAN
C200	SITE PLAN
C300	TRUCK TURN SU-30
C400	GRADING PLAN
C500	PLAN DETAILS
C501	SPECIFICATIONS
L100	LANDSCAPE PLAN

DEVELOPER/OWNER:

HALLE PROPERTIES, L.L.C.
20225 N. SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85255
PH.: (480) 606-6000
FAX: (480) 606-4370

PLAN DATE: 10/30/2023

REVISION	ISSUE DATE	ISSUED SHEETS	ISSUED FOR

GSOC GOPHER STATE ONE CALL

R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC.

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DATE	DESCRIPTION

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

TITLE SHEET

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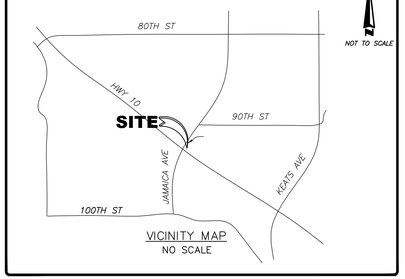
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: N.T.S.
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C000

K:\3230195\Dwg\Sheets\3230195_TS01.dwg, TITLE SHEET, 10/30/2023 2:56:38 PM, emg2

VICINITY MAP



VICINITY MAP
NO SCALE

ZONING INFORMATION

ITEM	REQUIRED	CONTACT: CONNER JAKE
ZONING DESIGNATION	MU (MIXED-USE)	REPORT DATE: 10/12/2023
MINIMUM LOT AREA (SQ. FT.)	N/A	REPORT #:
MINIMUM FRONTAGE	N/A	
MINIMUM LOT WIDTH	100'	
MAX IMPERVIOUS COVERAGE	70%	PARKING REQUIREMENTS: City Code Title 11-3-4 does not list a specific number of parking stalls required for the proposed automobile car wash use.
MAX BUILDING HEIGHT	55'	
MINIMUM SETBACKS	N/A	
FRONT	25 FEET	
SIDE	25 FEET	
REAR/SIDE	10 FEET	

NOTE: Proposed Carwash Facility at 8647/8649 East Point Douglas Road South – Site Plan Review, Planned Unit Development, Conditional Use Permit

SURVEYOR'S NOTES

PER TABLE A ITEM 1: MONUMENTS HAVE BEEN PLACE AT ALL MAJOR CORNERS OF THE BOUNDARY OF THE SURVEYED PROPERTY, UNLESS OTHERWISE SHOWN HEREON

PER TABLE A ITEM 2: 647-8649 E. POINT DOUGLAS RD, COTTAGE GROVE, MN WAS DISCLOSED IN DOCUMENTS PROVIDED AND OBSERVED AS POSTED AT THE TIME OF THE SURVEY.

PER TABLE A ITEM 4: PROPERTY CONTAINS: 0.98 ACRES (42,845 SQ. FT.) OF GROSS LAND AREA

PER TABLE A ITEM 5: ELEVATIONS WERE DERIVED USING THE MNDOT VRS NETWORK NAVD(88) DATUM.

PER TABLE A ITEM 8: SUBSTANTIAL ABOVE GROUND FEATURES THAT WERE OBSERVED ON THE SUBJECT PARCEL, SUCH AS PARKING AREAS, DRIVES, WALKS, PLANTERS/LANDSCAPE AREAS AND OTHER, HAVE BEEN LOCATED AS SHOWN HEREON. NOTE: THERE WERE NO OBSERVED SUBSTANTIAL AREAS OF REFUSE ON THE SUBJECT PARCEL PER THE DATE OF THIS SURVEY.

PER TABLE A ITEM 9: THERE ARE 32 STANDARD PARKING SPACES, 2 HANDICAPPED PARKING SPACES. FOR A TOTAL OFF 34 PARKING SPACES WITHIN SUBJECT PROPERTY

PER TABLE A ITEM 10: THERE WERE NO PARTY WALLS OBSERVED WITH RESPECT TO ADJOINING PROPERTIES

PER TABLE A ITEM 11: THE SURVEY SHOWS THE LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY OBSERVED EVIDENCE COLLECTED PURSUANT TO ALTA SECTION 5 E IV TOGETHER WITH EVIDENCE FROM PLANS REQUESTED BY THE SURVEYOR AND OBTAINED FROM THE UTILITY COMPANIES, OR PROVIDED BY THE CLIENT AND MARKINGS REQUESTED BY THE SURVEYOR PURSUANT TO A 811 UTILITY LOCATE OR SIMILAR REQUEST

PER TABLE A ITEM 13: ADJOINING OWNERSHIP INFORMATION SHOWN HEREON WAS OBTAINED FROM THE WASHINGTON COUNTY WEBSITE. OWNERSHIP INFORMATION IS SUBJECT TO REVISION UPON RECEIPT OF A TITLE SEARCH BY A TITLE INSURANCE COMPANY.

PER TABLE A ITEM 16: THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED AT THE TIME OF THE SURVEY.

PER TABLE A ITEM 17: THERE WAS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS AND WE ARE NOT AWARE OF ANY PROPOSED CHANGES IN STREET RIGHT OF WAY LINES.

PER TABLE A ITEM 18: PLOTTABLE OFFSITE APPURTENANT EASEMENTS DISCLOSED IN DOCUMENTS PROVIDED HAVE BEEN SHOWN HERE IF APPLICABLE.

1. BASED ON OBSERVED EVIDENCE ONLY, THE SITE DOES NOT CONTAIN ANY CEMETERIES, BURIAL GROUNDS, OR INDIVIDUAL GRAVE SITES.

2. BASED ON OBSERVED EVIDENCE ONLY THERE IS NO EVIDENCE OF LAKES, CREEKS OR STREAMS WITHIN SUBJECT PROPERTY.

3. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS; ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.

4. THE RECORD DESCRIPTIONS OF THE SUBJECT PROPERTY FORM A MATHEMATICALLY CLOSED FIGURE WITH NO GAPS, OR GORES.

5. THIS BEARING SYSTEM IS BASED ON WASHINGTON COUNTY COORDINATE SYSTEM / NAD83(2011).

6. PROPERTY HAS DIRECT AND PHYSICAL ACCESS TO AND FROM E POINT DOUGLAS ROAD, VIA EASEMENT AGREEMENT PER DOC. NO. 630193 & 658517 (PARCEL 3). A DULY DEDICATED PUBLIC RIGHT OF WAY.

FLOOD INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN ZONE "X", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 27163C0410E, WHICH BEARS AN EFFECTIVE DATE OF 2/3/2010, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE. ZONE "X" DENOTES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

NOTES CORRESPONDING TO SCHEDULE "B" ITEMS

THE BELOW IS A LIST OF NONE SURVEY RELATED SCHEDULE B ii ITEMS;

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met. (NO PLOTTABLE INFORMATION)

2. Rights or claims of parties in possession not shown by the Public Records. (NO PLOTTABLE INFORMATION)

3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land. (NO PLOTTABLE INFORMATION)

4. Easements, or claims of easements, not shown by the Public Records. (NO PLOTTABLE INFORMATION)

5. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records. (NO PLOTTABLE INFORMATION)

6. Taxes or special assessments which are not shown as existing liens by the Public Records. (NO PLOTTABLE INFORMATION)

7. General and special taxes and assessments as hereafter listed, if any (all amounts shown being exclusive of interest, penalties and costs):

A. Real estate taxes payable in 2023 are $19,016.00 and are half paid. Base tax $18,870.92 Property Identification No. 21.027.21.12.0027 (Parcel 1)

Real estate taxes payable in 2023 are $13,336.000 and are half paid. Base tax $13,212.76 Property Identification No. 21.027.21.12.0026 (Parcel 2)

NOTE: There are no delinquent taxes of record.
NOTE: The above tax amount may include annual recurring fees charged by the municipality and/or county, which are automatically certified to the real estate taxes.
NOTE: First half are due and payable on or before May 15, 2023; second half are due and payable on or before October 15, 2023.
B. Levied or pending assessments of record if any.
NOTE: An assessment search has been requested and the results of that search will follow by a commitment supplement.

8. Rights of tenants in possession under the terms of unrecorded leases. (NO PLOTTABLE INFORMATION)

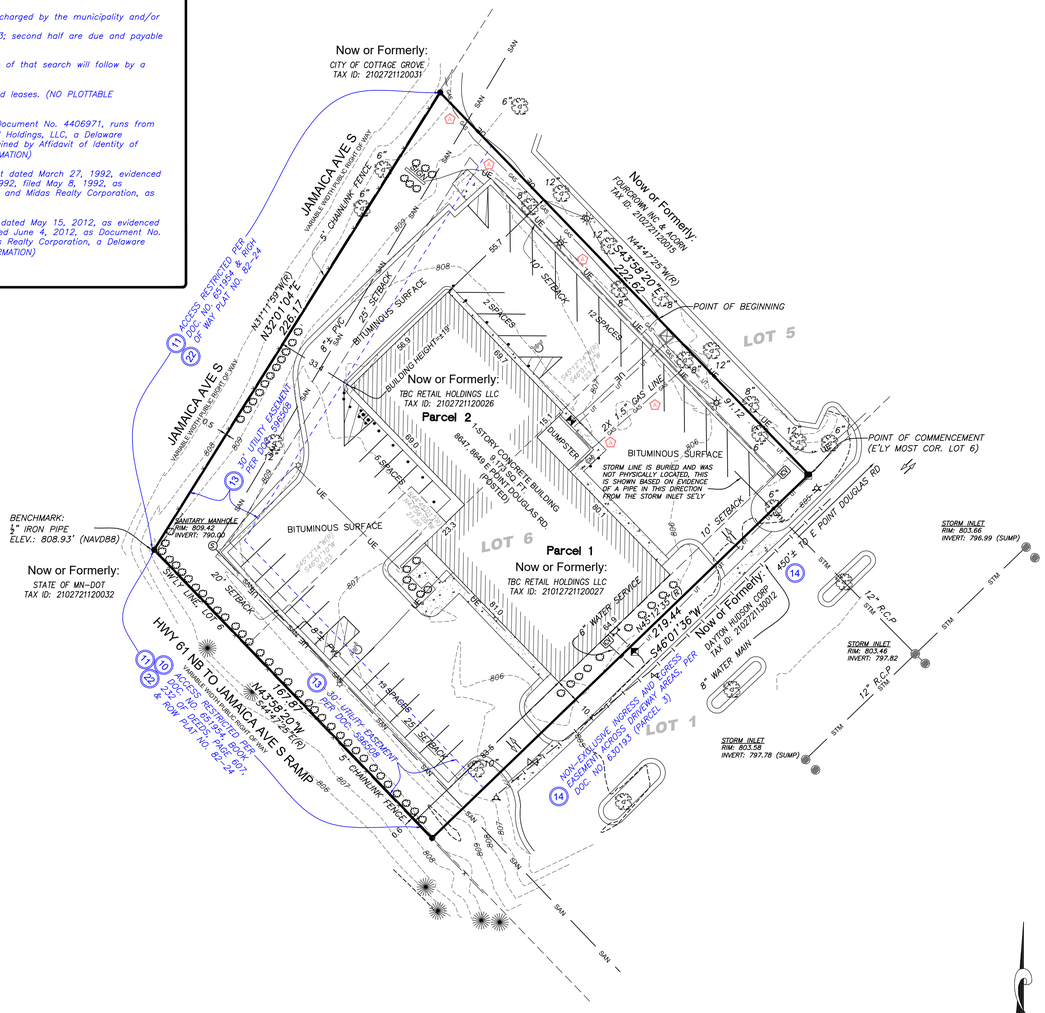
9. Warranty Deed dated May 26, 2023, filed May 30, 2023, as Document No. 4406971, runs from NTW, LLC, a Delaware limited liability (sic), Grantor, to TBC Retail Holdings, LLC, a Delaware corporation. This should be corrected by corrective deed or explained by Affidavit of identity of record as appropriate. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

17. Terms and conditions of unrecorded Optional Lease Agreement dated March 27, 1992, evidenced in Memorandum of Optional Lease Agreement dated March 27, 1992, filed May 8, 1992, as Document No. 694531, by and between Peter Houser, as Lessor, and Midas Realty Corporation, as Lessee. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

21. Terms and conditions of unrecorded Option and Shop Lease dated May 15, 2012, as evidenced Memorandum of Option and Shop Lease dated May 15, 2012, filed June 4, 2012, as Document No. 3891074, by and between Peter R. Houser, as Lessor, and Midas Realty Corporation, a Delaware corporation, as Lessee. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

LEGEND

- ELECTRIC TRANSFORMER
- ELECTRIC METER
- UTILITY PEDESTAL
- AC UNIT
- LIGHT POLE
- BOLLARD POST
- GAS METER
- TREE-DECIDUOUS
- TREE-EVERGREEN
- SHRUBS
- IRON MONUMENT FOUND
- FIRE HYDRANT
- AUTO SPRINKLER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- STORM INLET ROUND
- SANITARY MANHOLE
- HANDICAPPED PARKING
- NO PARKING
- SITE ACCESS
- CONCRETE
- SANITARY SEWER
- WATERMAIN
- UNDERGROUND ELECTRIC
- UNDERGROUND UTILITY (CABLE/TELE)
- UNDERGROUND GAS



SIGNIFICANT OBSERVATIONS

⬠ GAS MAIN CROSSES ONTO SUBJECT PROPERTY WITHOUT THE BENEFIT OF A KNOWN EASEMENT

TITLE DESCRIPTION

Parcel 1:
All of that part of Lot 6, Block 1, Cottage Grove Plaza, lying Southeasterly of the following described line: Commencing at the most Easterly corner of said Lot 6; thence North 44 degrees 47 minutes 25 seconds West, assumed bearing along the Northeasterly line of said Lot 6, a distance of 91.12 feet to the point of beginning; thence South 45 degrees 12 minutes 14 seconds West, 123.41 feet; thence North 44 degrees 45 minutes 01 seconds West, a distance of 21.00 feet; thence South 45 degrees 12 minutes 14 seconds West, a distance of 96.03 feet to the Southwesterly line of said Lot 6 and there terminating. Washington County, Minnesota

Abstract Property

Parcel 2:

All that part of Lot 6, Block 1, Cottage Grove Plaza, lying Northwesterly of the following described line: Commencing at the most Easterly corner of said Lot 6; thence North 44 degrees 47 minutes East 25 seconds West, assumed bearing along the Northeasterly line of said Lot 6, a distance of 91.12 feet to the point of beginning; thence South 45 degrees 12 minutes East 14 seconds West, a distance of 123.41 feet; thence North 44 degrees 45 minutes 01 seconds West, a distance of 21.00 feet; thence South 45 degrees 12 minutes 14 seconds West, a distance of 96.03 feet to the Southwesterly line of said Lot 6 and there terminating. Washington County, Minnesota

Abstract Property

Parcel 3:

Ingress and egress easement contained in Operation and Easement Agreement dated April 30, 1990, filed May 8, 1990, as Document No. 630193. Amended by First Amendment to Operation and Easement Agreement dated March 22, 1991, filed April 25, 1991, as Document No. 658517.

THE SURVEYED PROPERTY IS THE SAME PROPERTY AS SHOWN ON FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. CP72596 HAVING AN EFFECTIVE DATE OF SEPTEMBER 4, 2023.

NOTES CORRESPONDING TO SCHEDULE "B" ITEMS

9. Warranty Deed dated May 26, 2023, filed May 30, 2023, as Document No. 4406971, runs from NTW, LLC, a Delaware limited liability (sic), Grantor, to TBC Retail Holdings, LLC, a Delaware corporation. This should be corrected by corrective deed or explained by Affidavit of identity of record as appropriate. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

10. Right of access to Trunk Highway No. 61, acquired by the State of Minnesota, contained in Final Certificate dated July 27, 1960, filed September 20, 1960, in Book 232 of Deeds, Page 607. (AFFECTS PROPERTY, PLOTTED AND SHOWN HEREON)

11. Right of access to and from Trunk Highway No. 61 and Jamaica Avenue, acquired by the State of Minnesota, contained in Partial Final Certificate dated April 1, 1985, filed January 28, 1991, as Document No. 651954, and as evidenced on Minnesota Department of Transportation Right of Way Plat No. 82-22 filed September 11, 1978, as Document No. 379983. (PLOTTED AND SHOWN HEREON)

12. Terms and conditions of Amended and Restated Declaration dated August 17, 1989, filed August 23, 1989, as Document No. 608060.

Being an amendment and restatement of the following:
Declaration dated December 15, 1988, filed December 21, 1988, as Document No. 590319. (AFFECTS SUBJECT PROPERTY, NO PLOTTABLE INFORMATION. BLANKET IN NATURE, SEE DOCUMENT FOR DETAILS)

13. Easement for utility and related purposes in favor of the City of Cottage Grove contained in Utility Easement Deed dated February 20, 1989, filed March 16, 1989, as Document No. 596508. (AFFECTS PROPERTY, PLOTTED AND SHOWN HEREON)

14. Terms, conditions, covenants, restrictions and provisions of and easements contained in Operation and Easement Agreement dated April 30, 1990, filed May 8, 1990, as Document No. 630193.

Amended by First Amendment to Operation and Easement Agreement dated March 22, 1991, filed April 25, 1991, as Document No. 658517. (AFFECTS SUBJECT PROPERTY, ALLOWS FOR ACCESS TO AND FROM PROPERTY VIA ADJACENT PARCEL "COMMON AREAS" THIS AGREEMENT IS NOT MATHEMATICALLY CONFINED THEREFOR NOT PLOTTED. SEE DOCUMENT FOR DETAILS. SEE SHEET 2 OF 2)

15. Restriction contained in that certain Warranty Deed dated March 31, 1991, filed April 25, 1991, as Document No. 658519. (AFFECTS SUBJECT PROPERTY, NO PLOTTABLE INFORMATION. BLANKET IN NATURE)

16. Terms and conditions of Development Agreement dated April 25, 1990, filed May 8, 1990, as Document No. 630192. (AFFECTS SUBJECT PROPERTY. NO PLOTTABLE INFORMATION, BLANKET IN NATURE)

17. (NOT SURVEY RELATED)

18. Terms, conditions and restrictions contained in Use Restrictions and Covenants dated March 27, 1992, filed May 8, 1992, as Document No. 694532. (AFFECTS SUBJECT PROPERTY, BLANKET IN NATURE)

19. Terms and conditions of Resolution No. 92-87 filed July 10, 1992, as Document No. 702080. (AFFECTS SUBJECT PROPERTY, BLANKET IN NATURE)

20. Terms and conditions of and easements for ingress, egress and temporary vehicluar parking contained in Declaration of Driveway and Parking Easement dated October 23, 1995, filed October 23, 1995, as Document No. 859742. (AFFECTS SUBJECT PROPERTY BLANKET IN NATURE OVER PARCEL 1 AND PARCEL 2, SEE DOCUMENT FOR ADDITIONAL DETAILS)

21. (NOT SURVEY RELATED)

22. Minnesota Department of Transportation Right of Way Plat No. 82-24 filed as Document No. 3855.36 (Amendment to Right of Way Plat No. 82-22). (AFFECTS SUBJECT PROPERTY, ACCESS RESTRICTED ALONG SOUTHERLY AND WESTERLY PROPERTY LINES)

1" = 30'
GRAPHIC SCALE
0 15' 30' 60'

ALTA/NSPS Land Title Survey

for

Discount Tire

NWS Project No. 23769
8647-8649 E. POINT DOUGLAS RD
COTTAGE GROVE, MN

BASED UPON TITLE COMMITMENT NO. 67353
OF STEWART TITLE GUARANTY COMPANY
BEARING AN EFFECTIVE DATE OF JANUARY 11, 2023

Surveyor's Certification

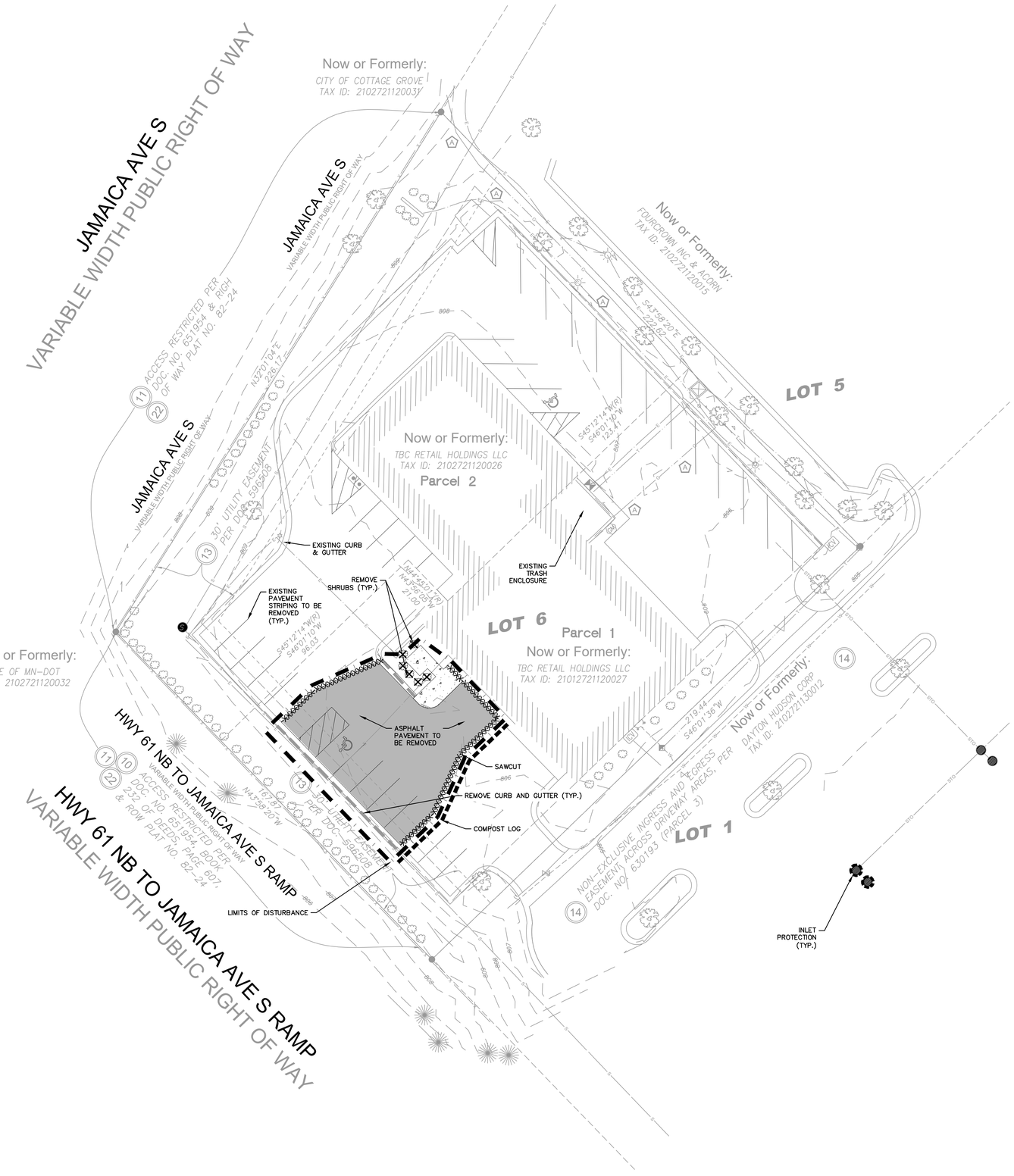
To: The Reinalt-Thomas Corporation, a Michigan corporation, Halle Properties, L.L.C., an Arizona limited liability company, including their subsidiaries, affiliates, successors and assignees and STEWART TITLE GUARANTY COMPANY.

THIS IS TO CERTIFY that this map or plat and the survey on which it is based were made in accordance with the 2021 minimum standard detail requirements for ALTA/NSPS land title surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 7a, 7b1, 7c, 8, 9, 10, 11a, 11b, 13, 14, 16, 17, 18, 19 and 20 of table A thereof. The field work was completed on 09/29/2023.

DATE

KALEB J. KADELBACH
LICENSE NO.: 57070
IN THE STATE OF MINNESOTA
DATE OF FIELD SURVEY: 09/29/2023
DATE OF LAST REVISION: 10/13/2023
NWS PROJECT NO.: 23769

NORTHWESTERN SURVEYING & ENGINEERING, INC.



LEGEND

- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- EXISTING ASPHALTIC PAVEMENT TO BE REMOVED
- REMOVE TREE/SHURB
- CURB & GUTTER TO BE REMOVED
- LIMITS OF DISTURBANCE = 0.09 ACRES
- ROCK LOG/COMPOST LOG
- SAW CUT
- STORM SEWER INLET PROTECTION

DEMOLITION NOTES TO CONTRACTOR

1. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL SITE AND DEMOLITION PERMITS.
2. THE DEMOLITION CONTRACTOR SHALL PREPARE AND MAINTAIN A PROJECT SAFETY PLAN. ALL SITE SAFETY EQUIPMENT AND MEASURES, INCLUDING FENCING, FIRE PROTECTION, AND THE LIKE ARE THE SOLE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR.
3. BEFORE PROCEEDING WITH ANY UTILITY CONSTRICTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES MUST BE INSPECTED AND REPAIRED PER MPCA, COUNTY AND CITY STANDARDS (WHICH EVER IS MOST FREQUENT AND CONSERVATIVE).
2. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD OR SIDEWALK SHALL BE REMOVED BY STREET CLEANING, OTHER THAN FLUSHING, IMMEDIATELY.
3. CONTRACTOR SHALL KEEP A COPY OF THE EROSION CONTROL PLANS AT THE PROJECT SITE AND PROVIDE COMPLETED EROSION CONTROL CHECK SHEETS TO THE CONSTRUCTION INSPECTOR. COTTAGE GROVE AND MPCA MAY REQUEST INSPECTION REPORTS AT ANY TIME.
4. IF NEEDED, DEWATERING AS NEEDED TO BE DONE ACCORDING TO MPCA STANDARDS.
5. DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE (WINTER) OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM).
6. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MEASURES AND PERFORMING MAINTENANCE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

GSOC GOPHER STATE ONE CALL

R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC.

ALL COPYRIGHTS TO THESE DRAWINGS ARE RESERVED. THEY MAY NOT BE COPIED, CHANGED, OR ASSIGNED TO ANY THIRD PARTY IN ANY MANNER WITHOUT OBTAINING THE EXPRESSED WRITTEN PERMISSION OF R.A.SMITH, INC.

DATE	DESCRIPTION

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

DEMOLITION AND EROSION CONTROL PLAN

© COPYRIGHT 2023
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C100

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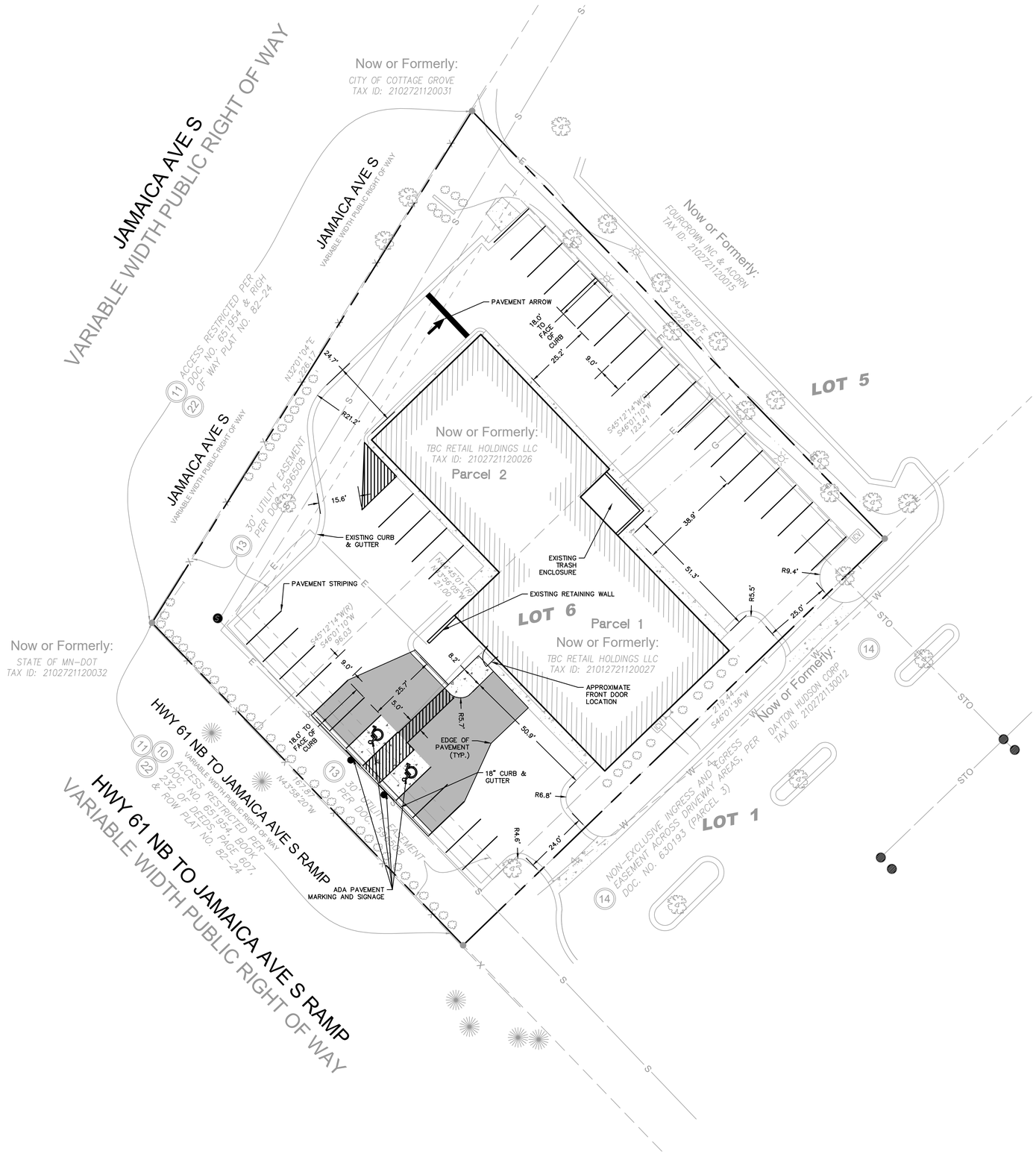

LEGEND

- PROPERTY LINE
- PROPOSED 18" CURB & GUTTER
- PROPOSED ASPHALT PAVEMENT – MATCH IN KIND
- PROPOSED CONCRETE PAVEMENT – MATCH IN KIND

GENERAL NOTES:

1. EXISTING TOPOGRAPHY OBTAINED BY NORTHWESTERN SURVEYING & ENGINEERING, INC. ON 09/29/2023.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSION OF ENTRANCES, VESTIBULES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
3. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE CITY OF COTTAGE GROVE EROSION CONTROL ORDINANCE AND STATE OF MINNESOTA TECHNICAL STANDARDS.
4. ALL DIMENSIONS AND CORRESPONDING HORIZONTAL CONTROL RELATED TO PAVING REPRESENT BACK OF CURB, ELEVATIONS AND CONTOURS REPRESENT FINISHED GRADES UNLESS OTHERWISE INDICATED. BUILDINGS ARE DIMENSIONED TO FACE OF BUILDING.
5. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
6. ALL SITE SIGNAGE MUST COMPLY WITH THE MOST RECENT EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PARKING STATISTICS

EXISTING PARKING	
REGULAR STALLS	32
ADA STALLS	2
TOTAL	34
REQUIRED PARKING	
3 PER BAY	4 BAYS x 3 = 12 PARKING STALLS
1 PER EMPLOYEE	15 EMPLOYEES X 1 PER EMPLOYEE = 15 PARKING STALLS
MINIMUM REQUIRED PARKING = 27	
PROPOSED PARKING	
REGULAR STALLS	36
ADA STALLS	2
TOTAL	38

EXISTING CONDITIONS	SQ.FT.	ACRES	COVERAGE
TOTAL AREA	42,845	0.98	
PERVIOUS SPACE	11,633	0.27	27.15%
IMPERVIOUS SPACE	31,212	0.72	72.85%
PROPOSED CONDITIONS			
PERVIOUS SPACE	11,714	0.27	27.15%
IMPERVIOUS SPACE	31,131	0.72	72.85%

GSOC GOPHER STATE ONE CALL

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DESCRIPTION	DATE

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

SITE PLAN

© COPYRIGHT 2023
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C200

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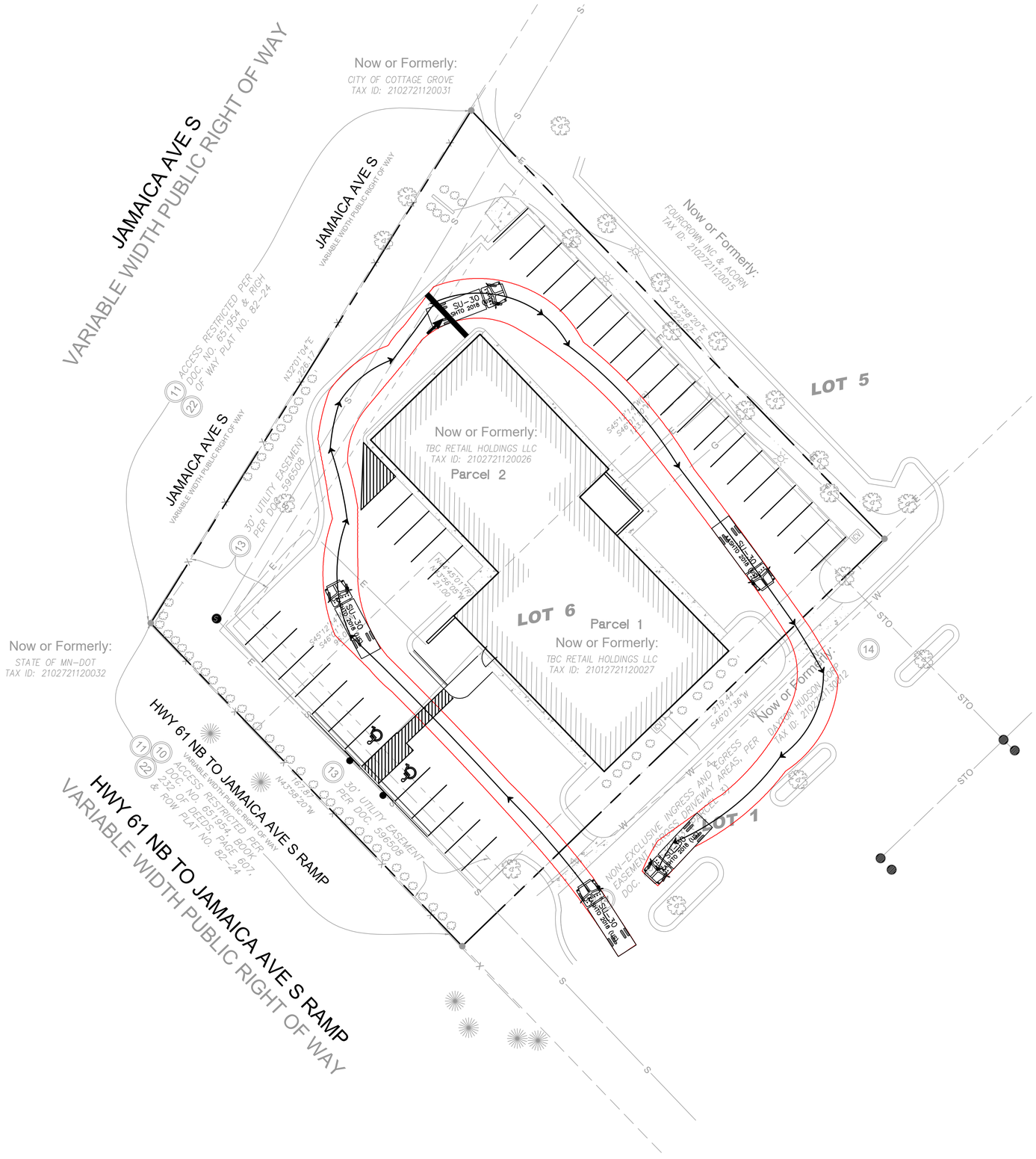

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Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

TRUCK TURN SU-30

GSOC GOPHER STATE ONE CALL

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R.A. Smith, Inc.

DATE:	10/30/2023
SCALE:	1" = 20'
JOB NO.	3230195
PROJECT MANAGER:	ROBERT J. HARLEY
DESIGNED BY:	EMG
CHECKED BY:	CBW
SHEET NUMBER	C300

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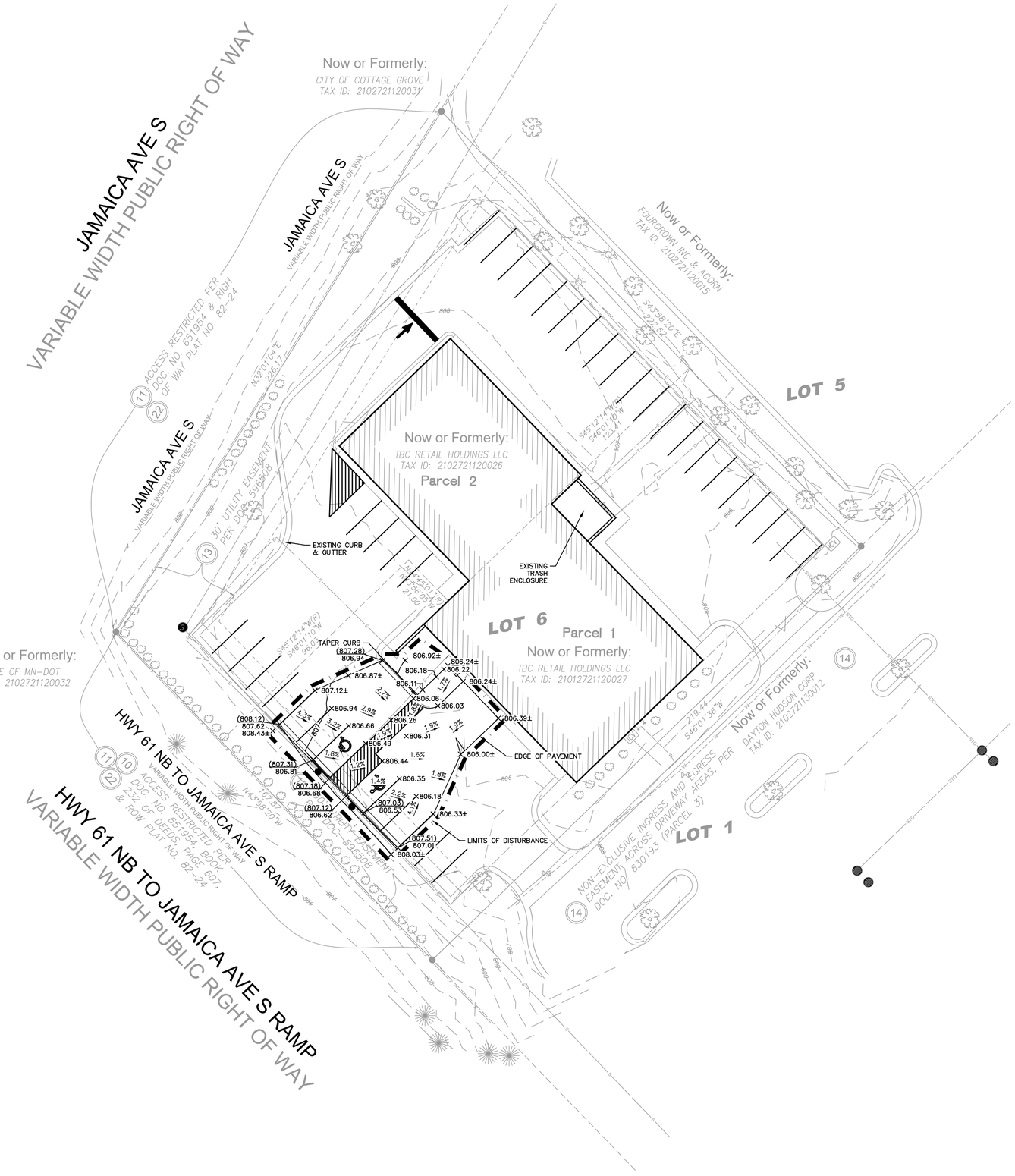

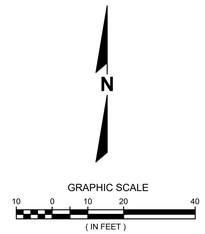

LEGEND

- 840.00 × — EXISTING SPOT ELEVATION
- 840 — EXISTING CONTOURS
- 840 — PROPOSED CONTOURS
- 840.00 × — PROPOSED SPOT GRADES
- (840.00) × — PROPOSED TOP OF CURB GRADES
- 840.00 ± × — MATCH INTO EXISTING
- ■ ● — PROPOSED STORM INLETS/MANHOLES
- LIMITS OF DISTURBANCE = 0.09 AC

GENERAL NOTES:

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE D.O.T. STANDARD SPECIFICATIONS, LOCAL ORDINANCES AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE THE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEVIATE WATER PONDING.
3. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE THREAT OF EROSION HAS PASSED WITH THE APPROVAL OF THE GOVERNING AGENCY.
4. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
5. GRADING SHALL CONSIST OF CLEARING AND GRUBBING EXISTING VEGETATION, STRIPPING TOPSOIL, REMOVAL OF EXISTING PAVEMENT OR FOUNDATIONS, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE AND ON-SITE EARTHWORK BALANCE, GRADING THE PROPOSED BUILDING PADS AND PAVEMENT AREAS, SCARIFYING AND FINAL COMPACTION OF THE PAVEMENT SUBGRADE, AND PLACEMENT OF TOPSOIL.
6. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
7. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL.
8. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
9. ALL SIDEWALKS SHALL HAVE A MAXIMUM 2.0% CROSS SLOPE. VERTICAL DISCONTINUITIES MUST BE LESS THAN .25 INCHES. MAXIMUM 5% RUNNING SLOPE.
10. CONTRACTOR TO DETERMINE HIGH-SIDE VS LOW-SIDE CURB. OR SEND RFI TO ENGINEER FOR ASSISTANCE

DESCRIPTION	DATE

raSmith
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16745 W. Bluemound Road
Brookfield, WI 53005-5938
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Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

GRADING PLAN

GSOC GOPHER STATE ONE CALL

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R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C400

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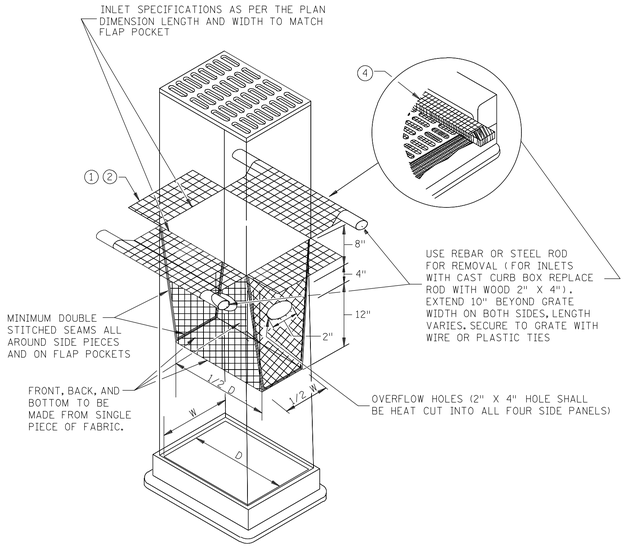

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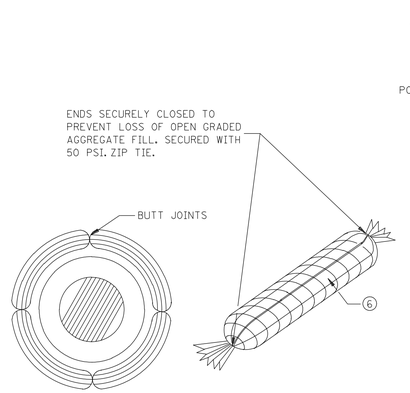
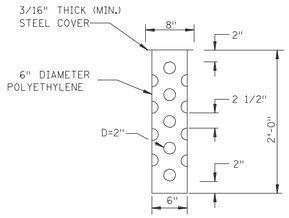
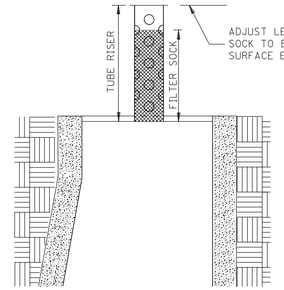
(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)



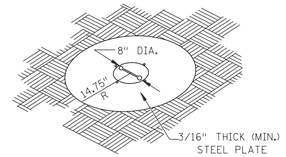
ROCK LOG/COMPOST LOG



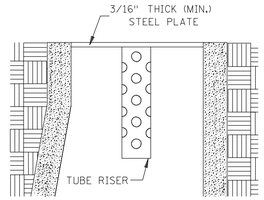
TUBE RISER



SECTION
(UP POSITION)

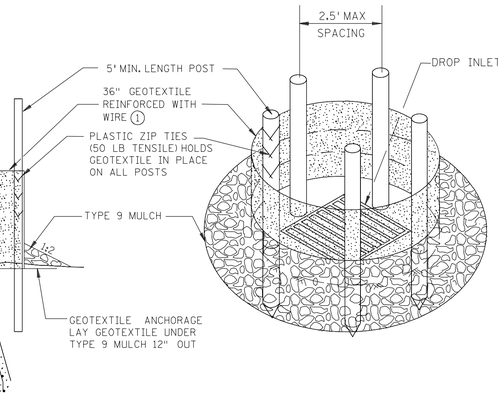


PERSPECTIVE VIEW



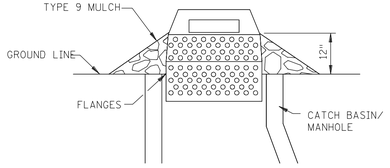
SECTION
(DOWN POSITION)

POP-UP HEAD



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS



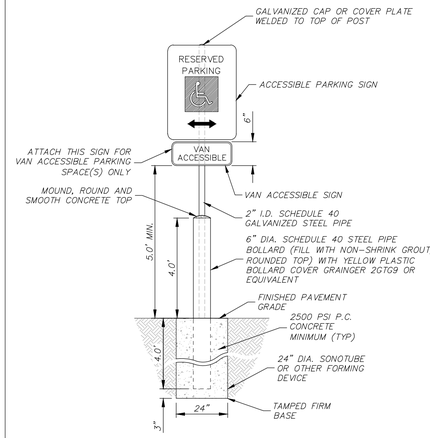
SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

NOTES:
SEE SPECS. 2573, 3137, & 3886.

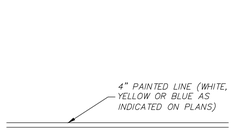
DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

1. ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
3. INSTALLATION NOTES:
   DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
5. SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
6. GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

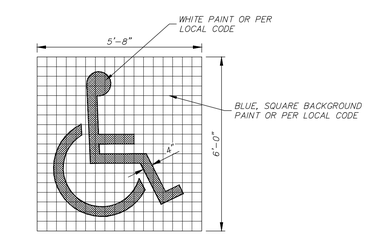


SIGN AND POST
INSTALLATION – TYPE 3

FOR ALL ACCESSIBLE PARKING
STALLS IN PAVEMENT AREAS
(NOT TO SCALE)

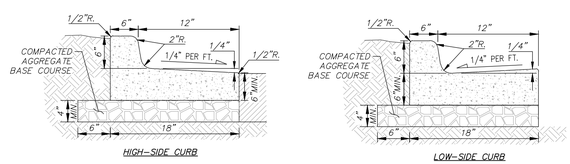


SINGLE STRIPE LINE DETAIL
(NOT TO SCALE)



4"x4" GRID FOR LAYOUT PURPOSES ONLY
FOR ALL ACCESSIBLE AND VAN ACCESSIBLE SPACES

ACCESSIBLE PAINTED SYMBOL DETAIL
(NOT TO SCALE)



18" CONCRETE CURB & GUTTER DETAIL
(NOT TO SCALE)

REVISION:

APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

STANDARD PLAN 5-297.405	4 OF 8
APPROVED: 2-28-2017	
REVISED:	
STATE PROJ. NO.	(T.H.) SHEET NO. OF SHEETS

TEMPORARY SEDIMENT CONTROL

STORM DRAIN INLET PROTECTION

GSOC GOPHER STATE ONE CALL

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DESCRIPTION | DATE

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Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

PLAN DETAILS

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DATE: 10/30/2023
SCALE: 1'-0" = 1'-0"
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C500

PLOTTED/REVISED: 4-APR-2018

IPLOT NAME: s405_4.ctb
PATH & FILENAME: OTS\DesignStandards\Development\New Border\400_Series\s405_4_sprudgn

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DIVISION 1 – GENERAL REQUIREMENTS

01 41 00 – REGULATORY REQUIREMENTS

1. THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED:
   a. MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) EROSION CONTROL AND LANDSCAPING PRODUCTS STANDARD SPECIFICATION BOOK
   b. MINNESOTA POLLUTION CONTROL AGENCY
   c. MINNESOTA STORM WATER MANUAL
   d. MINNESOTA ADMINISTRATIVE RULES, CHAPTER 7090, STORM WATER REGULATORY PROGRAM
   e. MINNESOTA PLUMBING CODE
   f. MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS
   g. FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
   h. THE ENGINEERING GUIDELINES FOR PROFESSION ENGINEERING SERVICES AND DEVELOPMENTS (GUIDELINES)
   i. THE CITY'S STANDARD CONSTRUCTION SPECIFICATIONS
   j. UNITED STATES DEPARTMENT OF JUSTICE ADA STANDARDS
   k. UNITED STATES DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES
   l. MUNICIPALITY DEVELOPMENT STANDARDS
   m. COUNTY DEVELOPMENT STANDARDS
2. THE OWNER, ENGINEER AND MUNICIPALITY SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS AND FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.
5. SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION IS DIFFERENT FROM THAT SPECIFIED OR IF REQUIRED BY THE MUNICIPAL ENGINEER.
   a. ALL DOCUMENTS SUBMITTED FOR REVIEW SHALL HAVE THE SPECIFIC MATERIAL, PART, SIZE, ETC. HIGHLIGHTED IN SOME FASHION. EXAMPLE: A FITTING CUT SHEET HAS MULTIPLE PRESSURE RATING FOR DIFFERENT SIZE BENDS. HIGHLIGHT THE PRESSURE CLASS & SIZE TO BE USED ON PROJECT. ALL SUBMITTALS NOT PROPERLY IDENTIFYING THE SPECIFIC MATERIAL BEING USED WILL BE REJECTED.
   b. CONTRACTOR SHALL SUBMIT A PDF COPY AND AN EXPLANATION AS TO HOW THE SUBSTITUTION MEETS THE PROPOSED DESIGN (PRODUCT SPECIFICATION SHEETS WITHOUT EXPLANATION WILL NOT BE ACCEPTED) TO THE OWNER'S REPRESENTATIVE OR ENGINEER FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL THE OWNER'S APPROVAL IS GIVEN. IN PROJECT SCHEDULING CONTRACTOR SHALL ACCOUNT FOR 5 WORKING DAYS FOR SUBMITTAL REVIEW. IN THE EVENT SUCH SUBSTITUTION IS APPROVED, THE OWNER WILL REQUIRE FROM THE CONTRACTOR A CREDITED DEDUCTION FROM THE CONTRACT AMOUNT EQUAL TO ANY SAVINGS IN MATERIAL COST RESULTING FROM USE OF THE PROPOSED SUBSTITUTE.
6. THE CONTRACTOR SHALL ASSUME COMPLETE AND SOLE RESPONSIBILITY FOR THE QUALITY OF WORK. IF CHANGES OR ADJUSTMENTS ARE RECOMMENDED BY THE CONTRACTOR, THEY MAY BE MADE ONLY UPON WRITTEN APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE.
   a. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE OWNER OR THEIR REPRESENTATIVE SHALL DECIDE ALL QUESTIONS WHICH SHALL ARISE AS TO THE QUALITY AND ACCEPTABILITY OF MATERIALS FURNISHED, WORK PERFORMED, AND WORKMANSHIP, , INTERPRETATION OF THE PLANS AND SPECIFICATIONS HE SHALL DETERMINE THE AMOUNT OF WORK PERFORMED AND MATERIALS FURNISHED.
   b. FAILURE OR NEGLIGENCE ON THE PART OF THE OWNER OR THEIR REPRESENTATIVE TO CONDEMN OR REJECT SUBSTANDARD OR INFERIOR WORK OR MATERIALS SHALL NOT BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR MATERIALS, IF IT BECOMES EVIDENT AT ANY TIME PRIOR TO THE FINAL ACCEPTANCE OF THE WORK BY THE OWNER. NEITHER SHALL IT BE CONSTRUED AS PREVENTING, AT ANY SUBSEQUENT TIME, FROM THE RECOVERY OF DAMAGES OR OF SUCH A SUM OF MONEY AS MAY BE NEEDED TO BUILD ANEW ALL PORTIONS OF THE SUBSTANDARD OR INFERIOR WORK OR REPLACEMENT OF IMPROPER MATERIALS WHEREVER FOUND.
   c. INSPECTORS EMPLOYED BY THE OWNER SHALL BE AUTHORIZED TO INSPECT ALL WORK DONE AND ALL MATERIAL FURNISHED. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE WORK AND TO THE PREPARATION, FABRICATION OR MANUFACTURE OF THE MATERIALS TO BE USED. THE INSPECTOR IS NOT AUTHORIZED TO REVOKE, ALTER OR WAIVE ANY REQUIREMENTS OF THE SPECIFICATIONS, NOR IS HE AUTHORIZED TO APPROVE OR ACCEPT ANY PORTION OF THE COMPLETED PROJECT. HE SHALL CALL THE ATTENTION OF THE CONTRACTOR TO ANY FAILURE OF THE WORK OR MATERIALS TO CONFORM TO THE SPECIFICATIONS AND CONTRACT, AND SHALL HAVE THE AUTHORITY TO REJECT MATERIALS. ANY DISPUTE BETWEEN THE INSPECTOR AND CONTRACTOR SHALL BE REFERRED TO THE OWNER OR THEIR REPRESENTATIVE. ANY ADVICE WHICH THE INSPECTOR MAY GIVE THE CONTRACTOR SHALL IN NO WAY BE CONSTRUED AS BINDING THE ENGINEER IN ANY WAY OR RELEASING THE CONTRACTOR FROM FULFILLING ANY OF THE TERMS OF THE CONTRACT.
   d. ALL MATERIALS AND EACH PART OF DETAIL OF THE WORK SHALL BE SUBJECT AT ALL TIMES TO INSPECTION BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE OR THE AUTHORITY HAVING JURISDICTION AND THE CONTRACTOR WILL BE HELD STRICTLY TO THE TRUE INTENT OF THE SPECIFICATIONS IN REGARD TO QUALITY OF MATERIALS, WORKMANSHIP, AND THE DILIGENT EXECUTION OF THE CONTRACT. SUCH INSPECTION MAY INCLUDE MILL, PLANT OR SHOP INSPECTION, AND ANY MATERIAL FURNISHED UNDER THESE SPECIFICATIONS IS SUBJECT TO SUCH INSPECTION. THE OWNER OR HIS REPRESENTATIVES SHALL BE ALLOWED ACCESS TO ALL PART OF THE WORK, AND SHALL BE FURNISHED WITH SUCH INFORMATION AND ASSISTANCE BY THE CONTRACTOR AS IS DETERMINED BY THE OWNER OR HIS REPRESENTATIVE, TO MAKE A COMPLETE AND DETAILED INSPECTION.
   e. ALL WORKMANSHIP SHALL CONFORM TO THE BEST STANDARD PRACTICE. UNLESS OTHERWISE SPECIFIED, THE SPECIFICATIONS OR RECOGNIZED ASSOCIATION OF MANUFACTURERS AND CONTRACTORS OR INDUSTRIAL MANUFACTURERS SHALL BE USED AS GUIDES FOR THE STANDARDS OF WORKMANSHIP.
   f. ALL EXPOSED ITEMS OF WORK SHALL PRESENT A NEAT WORKMANLIKE APPEARANCE AND SHALL BE AS TRUE TO SHAPE AND ALIGNMENT AS POSSIBLE TO OBTAIN WITH MEASURING OR LEVELING INSTRUMENTS GENERALLY USED IN THE RESPECTIVE TYPES OF WORK. ITEMS OF WORK SHALL BE SOUND AND FULLY PROTECTED AGAINST DAMAGE AND PREMATURE DETERIORATION. IT IS SPECIFICALLY UNDERSTOOD THAT IN ALL QUESTIONS OF QUALITY AND ACCEPTABILITY OF WORKMANSHIP, THE CONTRACTOR AGREES TO ABIDE BY THE DECISION OF THE OWNER OR THEIR REPRESENTATIVE.
   g. ALL MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS DEFECTIVE, AND ALL SUCH MATERIALS, WHETHER IN-PLACE OR NOT, SHALL BE REJECTED AND SHALL BE REMOVED FROM THE WORK BY THE CONTRACTOR AT HIS EXPENSE. UPON FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH ANY ORDER OF THE OWNER RELATIVE TO THE PROVISIONS OF THIS ARTICLE, THE OWNER SHALL HAVE THE AUTHORITY TO REMOVE AND REPLACE SUCH DEFECTIVE MATERIAL AND TO DEDUCT THE COST OF REMOVAL AND REPLACEMENT FROM ANY MONIES DUE OR WHICH MAY BECOME DUE THE CONTRACTOR.
   h. THE CONTRACTOR SHALL KEEP A LEGIBLE COPY OF THE PLANS, SPECIFICATIONS, AND ALL PERMITS AT THE SITE OF THE WORK AT ALL TIMES.
   i. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE THE OWNER OR THEIR REPRESENTATIVE WITH A MARKED-UP SET OF DRAWINGS SHOWING ALL CHANGES OR VARIATIONS FROM THE ORIGINAL DRAWINGS. THESE CHANGES SHALL BE MADE ON A SET OF FIELD DRAWINGS AS THE WORK TAKES PLACE, AND NOT FROM MEMORY WHEN THE WORK IS DONE. THIS SET OF DRAWINGS SHOULD BE KEPT CLEAN IN A LOCATION AT THE SITE WHERE THE OWNER OR THEIR REPRESENTATIVE MAY EXAMINE THEM.
   j. THE MARKED-UP DRAWINGS SHALL BE ACCURATE. ARBITRARY MARKINGS ARE OF NO VALUE. CAREFUL MEASUREMENTS SHALL BE MADE TO LOCATE UNDERGROUND EXTERIOR AND UNDERGROUND INTERIOR SEWERS, GAS LINES, WATER LINES, ELECTRICAL CONDUIT AND MISCELLANEOUS PIPING.
7. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. TRAFFIC CONTROL PLANS AND PERMITTING FOR ALL WORK TO BE COMPLETED ONSITE OR IN THE PUBLIC RIGHT-OF WAY.

01 70 00 – EXECUTION & CLOSEOUT REQUIREMENTS

1. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL EXISTING SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE WITH THIS PLAN.
2. EXISTING UTILITY INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY, BASED ON BEST AVAILABLE PUBLIC RECORDS, AS-BUILT DRAWINGS, AND FIELD OBSERVATIONS. NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR ACCURACY OR COMPLETENESS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND NATURE OF EXISTING UTILITIES, AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
3. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS, ELEVATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL PROPOSED UTILITY CONNECTIONS AND CROSSINGS PRIOR TO PROCEEDING WITH ANY WORK. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED. COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION
5. THE CONTRACTOR SHALL FIELD VERIFY ELEVATIONS OF THE BENCHMARKS AND HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES, AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH ANY WORK.
6. SURVEY BENCHMARKS AND CONTROL POINTS SHALL BE MAINTAINED AND PROTECTED FROM DISTURBANCE.
7. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED AT ALL TIMES. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR. THE COST OF RESTORATION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED.
9. PUBLIC ROADS SHALL NOT BE FULLY CLOSED TO TRAFFIC AT ANY TIME. ALL INGRESS AND EGRESS TRAFFIC TO THE PROJECT SITE SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES, SHALL BID ON THEIR OWN ESTIMATE OF THE WORK REQUIRED, AND SHALL NOT RELY ON THE ENGINEER'S ESTIMATE.
11. REQUESTS FOR CLARIFICATION WILL BE INTERPRETED BY THE OWNER/ENGINEER PRIOR TO AWARD OF CONTRACT, AND WHEN NECESSARY, OFFICIAL WRITTEN RESPONSES WILL BE ISSUED. OFFICIAL WRITTEN RESPONSES SHALL BE BINDING TO THE WORK. IN NO WAY SHALL VERBAL DIALOGUE CONSTITUTE OFFICIAL RESPONSE.
12. SHOULD ANY DISCREPANCIES BE DISCOVERED BY THE CONTRACTOR AFTER AWARD OF CONTRACT, NOTIFY OWNER/ENGINEER IN WRITING IMMEDIATELY. CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES SHALL NOT COMMENCE OR CONTINUE UNTIL AN OFFICIAL WRITTEN RESPONSE IS ISSUED
13. ALL WORK SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL INCLUDE ALL DEFECTS IN MATERIALS AND WORKMANSHIP.
14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

DIVISION 31 – EARTHWORK

31 10 00 – SITE CLEARING & DEMOLITION

1. WORK SHALL CONSIST OF DEMOLITION, ABANDONMENT, AND REMOVAL OF EXISTING FOUNDATIONS, WALLS, SLABS, FENCES, PIPING, PAVEMENTS, AND OTHER MANMADE ITEMS INTERFERING WITH NEW CONSTRUCTION. WORK SHALL ALSO CONSIST OF CLEARING AND GRUBBING OF TREES, SHRUBS, VEGETATION, ROOTS, STUMPS, RUBBISH, AND OTHER PERISHABLE MATTER INTERFERING WITH NEW CONSTRUCTION.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CALL 811 TO NOTIFY UTILITY PROVIDERS AND REQUEST FIELD LOCATION OF EXISTING UTILITIES WITHIN PROJECT LIMITS PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES.
4. INSTALL PERIMETER FENCING AS INDICATED PRIOR TO COMMENCING ANY CONSTRUCTION RELATED ACTIVITY.
5. CLEARLY IDENTIFY ALL VEGETATION TO BE PRESERVED AND/OR RELOCATED PRIOR TO CLEARING AND GRUBBING.
6. PROTECT EXISTING IMPROVEMENTS TO REMAIN DURING CONSTRUCTION. ANY DAMAGED IMPROVEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION, OR AS OTHERWISE ACCEPTABLE TO THE OWNER.
7. REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.
8. SAWCUT ALL PAVEMENT TO BE REMOVED IN STRAIGHT LINES TO FULL DEPTH.
9. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS. BREAK UP CONCRETE SLABS THAT ARE 2 FEET OR MORE BELOW PROPOSED SUBGRADE TO PERMIT DRAINAGE.
10. DISCONNECT AND SEAL/CAP EXISTING UTILITIES TO BE REMOVED, RELOCATED, OR ABANDONED IN ACCORDANCE WITH REQUIREMENTS OF UTILITY PROVIDERS.
11. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING OWNERSHIP OF AND COORDINATING NECESSARY REMOVAL AND/OR RELOCATION OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS.
12. DO NOT INTERRUPT UTILITY SERVICE TO EXISTING FACILITIES UNLESS PERMITTED BY THE OWNER.
13. VOIDS LEFT BY REMOVALS SHALL BE LEVELED TO PREVENT PONDING OF WATER.
14. REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS, TRASH, AND DEBRIS FROM THE PROJECT SITE. RUBBISH, TRASH, GARBAGE, AND LITTER SHALL BE PLACED IN SEALED CONTAINERS THROUGHOUT CONSTRUCTION.
15. CLEARING AND GRUBBING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISION OF MNDOT 2101.

31 20 00 – EARTH MOVING

1. WORK SHALL CONSIST OF STRIPPING AND STORAGE OF TOPSOIL, EXCAVATION, EMBANKMENT, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE LAND BALANCE, COMPACTION, FINISH GRADING, SUBGRADE PREPARATION, AND REPLACEMENT OF TOPSOIL.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION BASED ON FIELD CONDITIONS, AND THESE REQUIREMENTS. THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
4. EXCAVATE TO SUBGRADE REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. EXCAVATED MATERIAL MAY INCLUDE ROCK AND UNCLASSIFIED OBSTRUCTIONS, WHICH IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE WORK.
5. EXISTING FOUNDATIONS, BUILDING REMNANTS, AND UNSATISFACTORY MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND BUILDING PAD AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATERIAL.
6. EXISTING FOUNDATIONS, BUILDING REMNANTS, AND UNSATISFACTORY MATERIAL SHALL BE REMOVED TO A MINIMUM OF 2 FEET BELOW PROPOSED SUBGRADE WITHIN GREENSPACE AND PAVEMENT AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATERIAL.
7. AREAS SHALL BE GRADED TO WITHIN 1 INCH, MORE OR LESS, OF PROPOSED SUBGRADE. DEVIATIONS SHALL NOT BE CONSISTENT IN ONE DIRECTION.
8. DISKING, HARROWING, AND AERATION TECHNIQUES SHALL BE USED TO DRY SUBGRADE PRIOR TO PROOF ROLLING.
9. IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER, PROOF ROLL SUBGRADE BELOW BUILDING PAD AND PAVEMENT AREAS DURING DRY WEATHER WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK WHERE COHESIVE SOILS ARE PREDOMINANT, AND WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PREDOMINANT. SUBGRADE WHICH IS OBSERVED TO RUT OR DEFLECT EXCESSIVELY SHALL BE UNDERCUT IN ACCORDANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. DO NOT PROOF ROLL WET OR SATURATED SUBGRADE.
10. THE CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ADEQUATELY WATER PONDING SURFACE WATER AND GROUNDWATER SHALL BE PREVENTED FROM ENTERING EXCAVATIONS, PONDING ON PREPARED SUBGRADES, AND FLOODING PROJECT SITE AND/OR SURROUNDING AREAS.
11. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ALL EARTHWORK COMPUTATIONS AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
12. TOPSOIL REPLACEMENT DEPTH SHALL BE AS CALLED OUT ON THE CIVIL OR LANDSCAPE PLANS, OR A MINIMUM OF FOUR INCHES IF NOT CALLED OUT ON LANDSCAPE PLAN.
13. TOPSOIL IN PARKING ISLANDS: ALL PARKING LOT ISLANDS TO BE BACKFILLED WITH TOPSOIL TO A MINIMUM DEPTH OF 18" BY GRADING CONTRACTOR TO INSURE LONG TERM PLANT HEALTH. CROWN ALL PLANTING ISLANDS A MINIMUM OF 6" TO PROVIDE PROPER DRAINAGE, UNLESS OTHERWISE SPECIFIED.

31 25 00 – EROSION & SEDIMENTATION CONTROLS

1. WORK SHALL CONSIST OF INSTALLATION OF TEMPORARY AND PERMANENT PRACTICES FOR SEDIMENTATION CONTROL, EROSION CONTROL, SLOPE PROTECTION, AND REMOVAL OF PRACTICES UPON FINAL SITE STABILIZATION.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. INSTALLATION AND MAINTENANCE OF PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE MNDOT STANDARDS, OR CITY OF COTTAGE GROVE STANDARDS SPECIFICATIONS IF A TECHNICAL STANDARD IS NOT AVAILABLE.
4. ALL PRACTICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY LAND DISTURBING CONSTRUCTION RELATED ACTIVITY. EARTHWORK ASSOCIATED WITH INSTALLATION OF PRACTICES MAY OCCUR CONCURRENTLY.
5. ALL PRACTICES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH PERMIT REQUIREMENTS.
6. ALL PRACTICES SHALL BE ROUTINELY INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL GREATER THAN 0.5 INCHES. THE CONTRACTOR IS REQUIRED TO PERFORM INSPECTIONS, KEEP A LOG, AND CONDUCT REPAIRS AS NEEDED.
7. ALL DISTURBED AREAS SHALL DRAIN TO A CONTROL PRACTICE AT ALL TIMES DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING UPON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL ADDITIONAL CONTROL PRACTICES IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT SITE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL PRACTICES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.
8. ALL DISTURBED GROUND LEFT INACTIVE FOR 7 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE AND MULCH. THE TEMPORARY SEED MIXTURE SHALL BE IN ACCORDANCE WITH SECTION 630 OF WISDOT STANDARD SPECIFICATIONS. WINTER WHEAT OR RYE SHALL BE USED FOR TEMPORARY SEED AFTER SEPTEMBER 1.
9. DISTURBED AREAS THAT CAN NOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM).
10. ALL ACTIVITIES ON THE PROJECT SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME.
11. DUST GENERATED BY CONSTRUCTION RELATED ACTIVITIES SHALL BE MINIMIZED BY USE OF WATERING, CALCIUM CHLORIDE SURFACE TREATMENT, CONSTRUCTION SCHEDULING, OR OTHER APPROPRIATE MEASURES.
12. THE CONTRACTOR SHALL BE PREPARED FOR DEWATERING CONDITIONS BY HAVING APPROPRIATE PUMPS AND FILTER BAGS ONSITE. ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED PRIOR TO DISCHARGE FROM THE PROJECT SITE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF THE PROJECT SITE AND PUBLIC ROADS DURING CONSTRUCTION. PUBLIC ROADS SHALL BE KEPT FREE OF SEDIMENT TRACKED FROM AREAS UNDER CONSTRUCTION BY DAILY SWEEPING OR OTHER APPROPRIATE MEASURES.
14. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
15. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN TO MAINTAIN A VIGOROUS DENSE VEGETATIVE COVER.

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 12 00 – ASPHALT PAVING

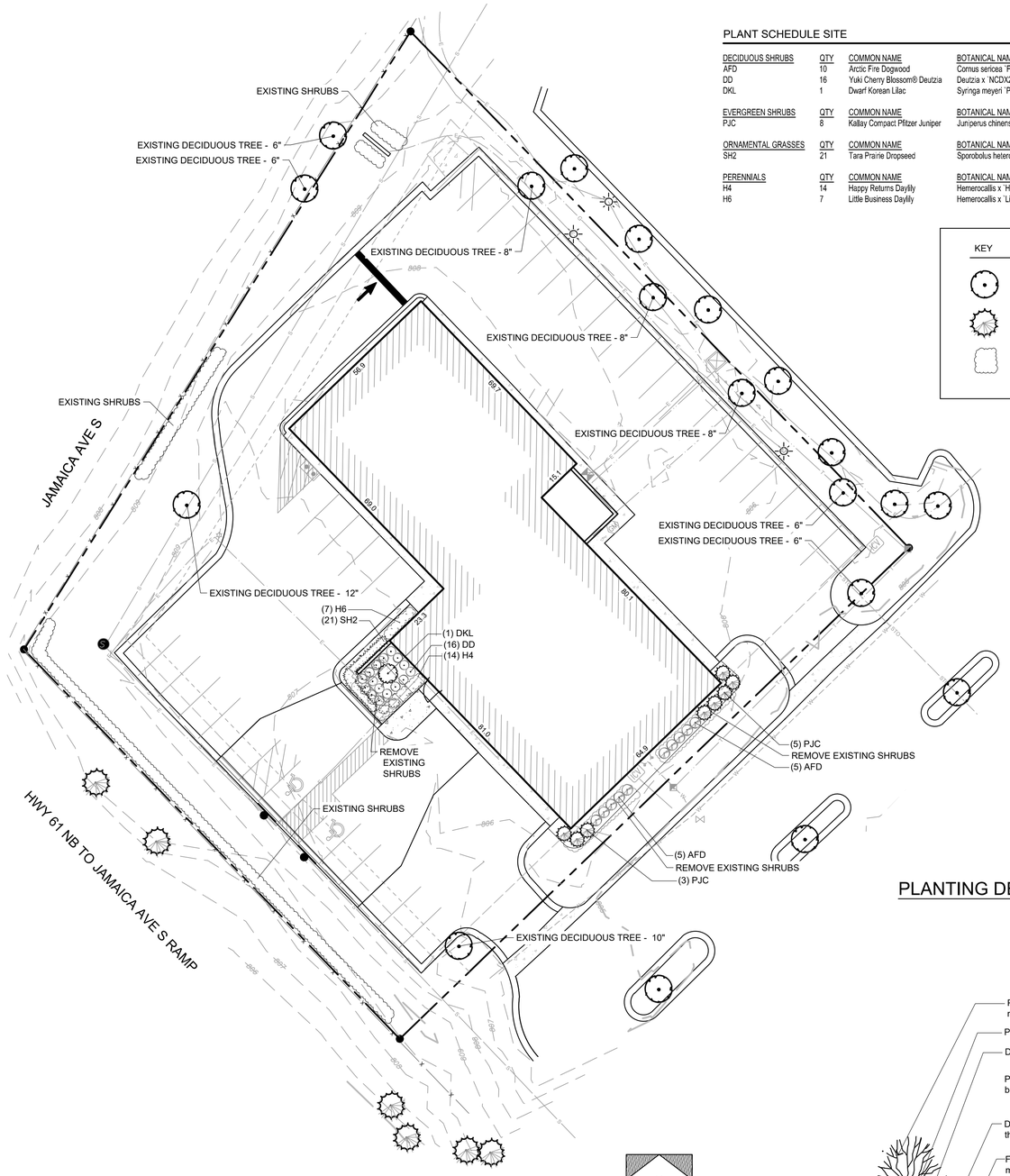
1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF HOT-MIX ASPHALT, PAVEMENT MARKING, SIGNAGE, AND CLEANUP.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
4. ASPHALTIC MATERIALS SHALL BE IN ACCORDANCE WITH MNDOT 2360
5. AGGREGATE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
6. DO NOT CONDUCT ASPHALT PAVING IF ANY OF THE FOLLOWING CONDITIONS EXIST: CRUSHED STONE BASE IS WET OR EXCESSIVELY DAMP; TEMPERATURE IS BELOW 30 DEGREES FAHRENHEIT AT TIME OF BINDER COURSE INSTALLATION; TEMPERATURE HAS BEEN BELOW 35 DEGREES FAHRENHEIT WITHIN 12 HOURS PRIOR TO TACK COAT APPLICATION; TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AT TIME OF SURFACE COURSE INSTALLATION.
7. COMPACT ASPHALT IN ACCORDANCE WITH MNDOT 2360
8. APPLY TACK COAT BETWEEN ASPHALT COURSES AT A MINIMUM RATE OF 0.25 GAL/SY.
9. NO TRAFFIC SHALL BE ALLOWED ON ASPHALT AFTER FINAL ROLLING UNTIL IT HAS COOLED AND HARDENED.
10. FINAL ASPHALT SURFACE SHALL BE WITHIN A 1/8-INCH TOLERANCE AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED LONGITUDINALLY OR TRANSVERSELY. REMOVE AND REPLACE ALL RAISED AND DEPRESSED AREAS EXCEEDING TOLERANCE.
11. A SLOPE NO GREATER THAN 2% IN ALL DIRECTIONS AT ADA PARKING STALLS AND ADJACENT UNLOADING AREAS IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
12. A SLOPE NO GREATER THAN 5% ALONG THE LENGTH OF THE ACCESSIBLE ROUTE IS REQUIRED. A SLOPE NO GREATER THAN 2% ACROSS THE WIDTH OF THE ACCESSIBLE ROUTE IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

32 13 00 – CONCRETE PAVING

1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF CONCRETE, AND CLEANUP.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
4. CONCRETE PAVING SHALL BE IN ACCORDANCE WITH MNDOT 2301.
5. CONCRETE SHALL BE GRADE A AIR-ENTRAINED IN ACCORDANCE WITH MNDOT 2301 WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
6. AGGREGATE SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
7. WATER SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
8. AIR-ENTRAINING SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301.
9. LIQUID CURING COMPOUND SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
10. CURBING SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS.
11. SIDEWALK AND PATIO SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS.
12. CONCRETE FORMS SHALL REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE INSTALLATION AND SHALL BE CLEANED AFTER EACH USE. CONCRETE FORMS SHALL BE COATED WITH RELEASE AGENT TO ALLOW SEPARATION WITHOUT DAMAGE TO CONCRETE.
13. CONSTRUCTION AND CONTRACTION JOINTS SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS. JOINT PATTERN SHALL FOLLOW ARCHITECTURAL PLANS IF AVAILABLE.
14. ISOLATION JOINTS SHALL CONSIST OF PREFORMED JOINT FILLER STRIPS ABUTTING CURBING, INLETS, CATCH BASINS, MANHOLES, STRUCTURES, AND OTHER FIXED OBJECTS.

DIVISION 32 – EXTERIOR IMPROVEMENTS

15. EDGES OF CONCRETE PAVEMENT, CURBING, SIDEWALK, PATIOS, AND JOINTS SHALL BE TOOLED IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING AFTER APPLYING SURFACE FINISHES AND ELIMINATE TOOL MARKS ON SURFACES.
16. FINISH, CURE, AND PROTECT CURBING
17. FINISH (LIGHT BROOM), CURE, AND PROTECT SIDEWALK AND PATIOS IN ACCORDANCE WITH MNDOT STANDARD SPECIFICATIONS.
18. FINISH (ARTIFICIAL TURF DRAG), CURE, AND PROTECT VEHICULAR PAVEMENT AND PADS
19. MAINTAIN CONCRETE FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PRIOR TO SUBSTANTIAL COMPLETION INSPECTION.
20. MAXIMUM DIFFERENCE BETWEEN



PLANT SCHEDULE SITE

DECIDUOUS SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
AFD	10	Arctic Fire Dogwood	Cornus sericea `Farrow`	15" HT	CONT.	
DD	16	Yuki Cherry Blossom® Deutzia	Deutzia x `NCDX2`	15" HT	CONT.	
DKL	1	Dwarf Korean Lilac	Syringa meyeri `Palibin`	18" HT	CONT.	
EVERGREEN SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
PJC	8	Kallay Compact Pfitzer Juniper	Juniperus chinensis `Kallays Compact`	18"SPD	CONT.	
ORNAMENTAL GRASSES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
SH2	21	Tara Prairie Dropseed	Sporobolus heterolepis `Tara`	1 GAL	POT	18" Spacing
PERENNIALS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
H4	14	Happy Returns Daylily	Hemerocallis x `Happy Returns`	4 1/2"	POT	18" Spacing
H6	7	Little Business Daylily	Hemerocallis x `Little Business`	4 1/2"	POT	24" Spacing

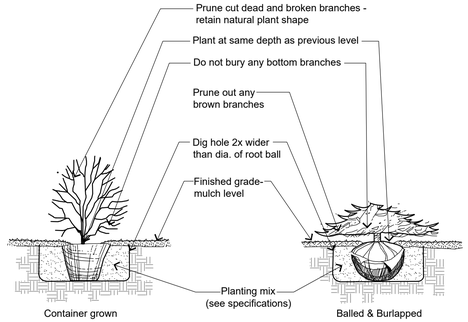
KEY

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING EVERGREEN TREE TO REMAIN
- EXISTING SHRUBS TO REMAIN

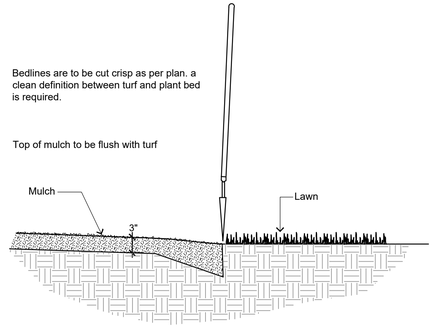
NORTH

0 10 20 40
GRAPHIC SCALE

PLANTING DETAILS



1 SHRUB PLANTING DETAIL
NOT TO SCALE



2 SHOVEL CUT PLANT BED EDGING DETAIL
NOT TO SCALE

DIVISION 1 - GENERAL REQUIREMENTS

01 5 00 Substitution Procedures

1. Any potential plant substitutions must be submitted in writing to the general contractor and approved by the owner's representative or prior to installation. All plants must be installed as per sizes and quantities shown on plant material schedule, unless approved by owner's representative . Any potential changes to sizes shown on plan and appropriate cost credits / adjustments must be submitted in writing to the general contractor and approved by the owner's representative prior to installation.

01 11 13 Work Covered by Contract Documents

1. Warranty and replacements: All plants (evergreens, shrubs, perennials and ornamental grasses) shall be warranted by the landscape contractor to be in healthy and flourishing condition for a period of one calendar year after the date of acceptance. This assumes the owner performs required maintenance (i.e. regular watering) after the landscape contractor's maintenance period has been completed. Landscape contractor shall inform owner when required maintenance has concluded. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements. Replacements shall be plants of the same variety specified on the plan and closely match adjacent specimens in size.

2. The landscape contractor is responsible for the watering and maintenance of all landscape areas at time of planting, throughout construction and until the substantial completion of the installation and acceptance by the owner. This includes all trees, shrubs, evergreens, perennials, ornamental grasses, turf grass and native seeding areas. Work also includes weeding, edging, mulching (only if required), fertilizing, trimming, mowing lawn areas, sweeping up grass clippings, pruning and deadheading.

3. Upon substantial completion of the project, landscape contractor is responsible to conduct a final review of the project with the owner's representative and the general contractor to answer questions and insure that all specifications have been met. The landscape contractor shall provide watering and general ongoing maintenance instructions (in writing) for the new plantings and lawn areas.

012 16 Work Sequence

1. Contractor responsible for contacting public and private underground utility locating service to have site marked prior to any digging or earthwork.

2. Contractor to verify all plant quantities shown on plant list and verify with plan. Report any discrepancies immediately to general contractor. Inform landscape architect and general contractor of date(s) when planting shall commence.

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 91 00 - PLANTING PREPARATION

32 91 13 Soil Preparation

1. Areas to be seeded: remove / kill off any existing unwanted vegetation prior to seeding with a glyphosate herbicide, applied only by a state certified applicator no sooner than 2 weeks prior to seed installation. Prepare seed bed areas to a maximum depth of 1 inch. Prepare the topsoil by removing all surface stones 1" or larger. Soil's surface should be loose and free of any soil clumps exceeding 1 inch in diameter. Do not fertilize native seeding areas.

2. Plant bed preparation: the soil in all perennial and ornamental grass areas shall be amended with compost prior to plant installation. Spread a 2" layer of compost (per note below) on top of clean topsoil and rototill to a depth of approximately 8".

3. Compost shall be stable, and weed-free organic matter. It shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth. The compost shall contain no pathogens or other chemical contaminants and meet the requirements of WisDNR S100 Compost Specification.

32 91 13.16 Mulching

1. All shrub planting beds to receive a 3" deep layer of high quality shredded hardwood bark mulch (not enviromulch or wood chips). Mulch shall be uniform in size, color, quality and overall appearance. Mulch shall be free of debris, large wood chunks, soil, rocks, weeds, invasive plant parts or seeds and any other material injurious to plant growth. All perennial and ornamental grass planting areas to receive a 2" layer and groundcover areas a 1-2" layer of the same mulch. Do not allow mulch to contact plant stems and tree trunks.

32 93 00 - PLANTS

1. All plantings shall comply with standards as described in American Standard of Nursery Stock - ANSI Z60.1 (latest version). General contractor or owner's representative reserves the right to inspect and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged.

32 93 33 Shrubs

1. Shrubs shall be planted per planting details.
2. All shrubs to be pocket planted with a mix of 75% existing soil removed from excavation and 25% compost, blended prior to backfilling holes.
3. When hole is two-thirds full, shrubs shall be watered thoroughly and water left to soak in before proceeding.

32 94 00 - PLANTING ACCESSORIES

32 94 13 Landscape Edging

1. Edge all planting beds with a 4" deep spaded edge (shovel cut or mechanical). Bedlines are to be cut crisp, as per plan. A clean definition between lawn and plant bed is required.

GSOC GOPHER STATE ONE CALL

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ras-2023-3230195-02

DESCRIPTION | DATE

raSmith
CREATIVITY BEYOND ENGINEERING
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Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

LANDSCAPE PLAN

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R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: NJW
CHECKED BY: REW

SHEET NUMBER
L100

C:\Users\rharley\Desktop\3230195\Dwg\Sheets\3230195_LSP01.dwg, LANDSCAPE PLAN, 10/30/2023 2:57:36 PM, emg2

STAFF REPORT CASE: CUP2024-001

ITEM: 6.1

PUBLIC MEETING DATE: 1/22/24 **TENTATIVE COUNCIL REVIEW DATE: 2/7/24**

APPLICATION

APPLICANT: **Halle Properties, LLC, on behalf of NTW, LLC**

REQUEST: **A Conditional Use Permit (CUP) to utilize the existing building and site layout for a minor automobile repair use for Discount Tire.**

SITE DATA

LOCATION: **8647 and 8649 East Point Douglas Road South**

ZONING: **MU, Mixed Use**

GUIDED LAND USE: **Mixed Use within 300 Feet of Arterial Roadways**

LAND USE OF ADJACENT PROPERTIES:	CURRENT	GUIDED
NORTH:	Commercial	Mixed Use within 300 feet
EAST:	Commercial	Mixed Use within 300 feet
SOUTH:	Highway 61	Highway 61
WEST:	Commercial	Mixed Use within 300 feet

SIZE: **Building = 5,160 square feet**

DENSITY: **N/A**

RECOMMENDATION

Approval, subject to the conditions stipulated in this staff report.

COTTAGE GROVE PLANNING DIVISION

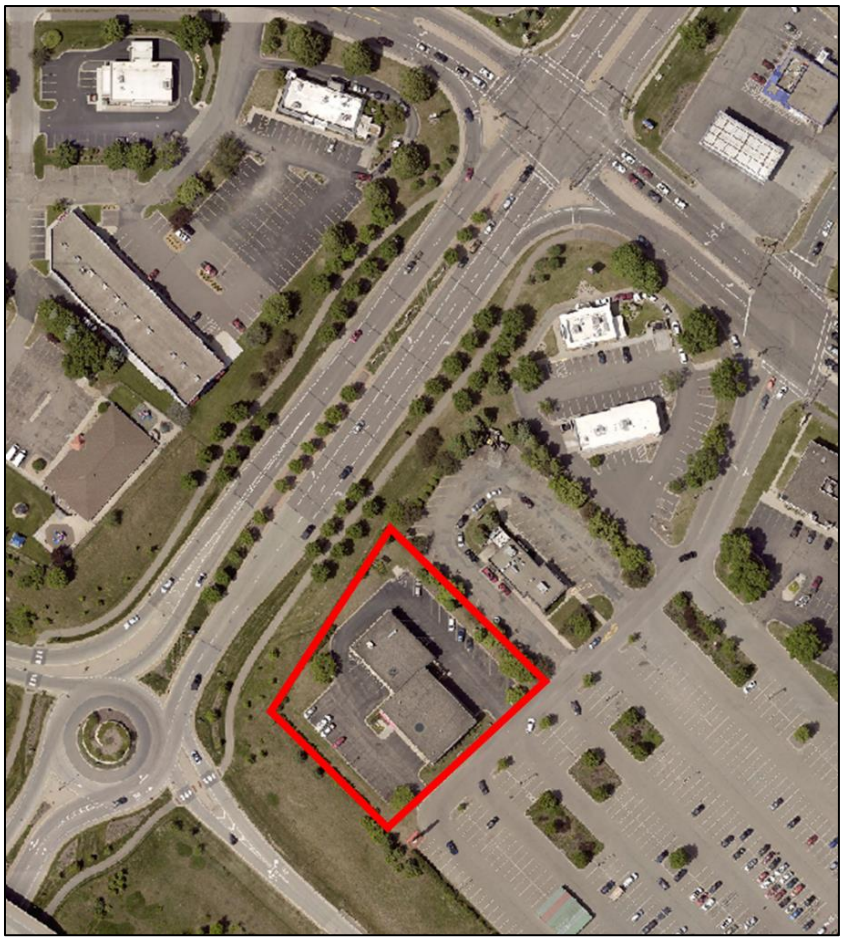
Planning Staff Contact: Conner Jakes, Associate Planner; 651-458-2868; cjakes@cottagegrovemn.gov

Application Accepted: 12/12/2024 60-Day Review Deadline: 2/10/2024

Planning Staff Report
Discount Tire
Planning Case No. CUP2024-001
January 22, 2024

Introduction

Halle Properties, LLC (Applicant) has submitted an application for a Conditional Use Permit (CUP) at 8647/8649 East Point Douglas Road South. The Applicant is proposing to utilize the existing building and site layout for a minor automobile repair use onsite. The proposed project is located on a .98-acre parcel of land to the southwest of the current Wendy's restaurant and northwest of the current Target site.



Site Location

Review Schedule

Application Received: December 12, 2023
Application Accepted: December 12, 2023
Planning Commission Meeting: January 22, 2024
Tentative City Council Meeting: February 7, 2024
60-Day Review Deadline: February 10, 2024

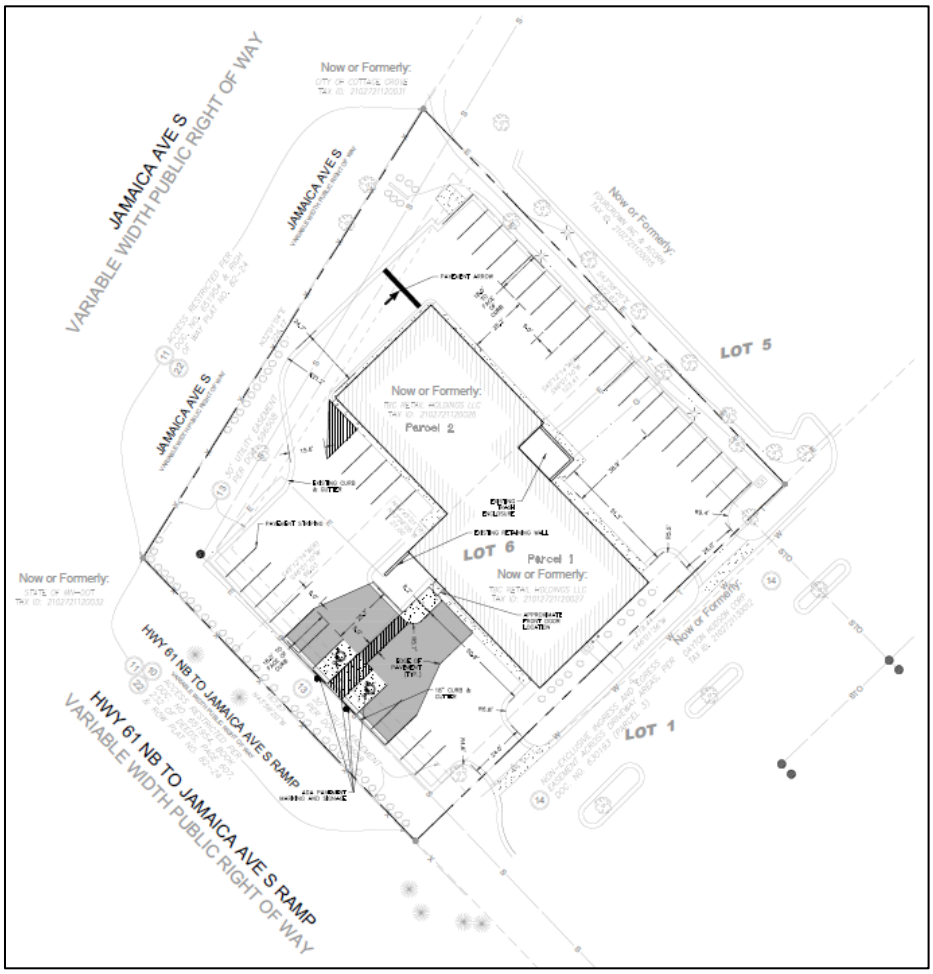
Background

The subject site has been occupied by an automotive repair use since the original approvals in 1991 and was most recently occupied by Big O Tires. In 1992 an application for a simple lot division was submitted and approved. The intent at the time was to create two parcels allowing the user to separate the automotive use from potential office space for additional tenants. However, the entire site has been most recently occupied by one tenant and the only onsite use was automotive repair. Approvals for an automobile car wash were granted in March of 2023; however, the applicant for the automobile car wash withdrew the application. A condition of approval will require the two lots be combined into one lot.

2022 Aerial Photo

Proposal

The Applicant is proposing to utilize the existing building and site layout for a minor automotive repair use with updates to the architectural elevations, parking lot stalls, and site landscaping. Daily activities onsite include only the selling, installing, and servicing of tires and wheels. There will not be automotive repair, oil changes, or any body work occurring onsite as the focus of the business is solely on tires. The proposed hours of operation are Monday through Friday from 8am to 6pm, and Saturday from 8am to 5pm.



Proposed Site Plan

Planning Considerations

Zoning and Comprehensive Plan

The subject site is zoned MU, Mixed-Use District, and is guided as Mixed Use in the 2040 Comprehensive Plan. The proposed use is consistent with the City's zoning ordinance and land use plan. Minor automobile repair uses are permitted with a Conditional Use Permit (CUP) within the Mixed-Use Zoning District.

Conditional Use Permit

City Code requires a CUP for a minor automotive repair use within the Mixed-Use District. The Applicant is proposing to operate a minor automotive repair use solely focused on selling, installing, and servicing tires. The criteria for issuance of a CUP are as follows:

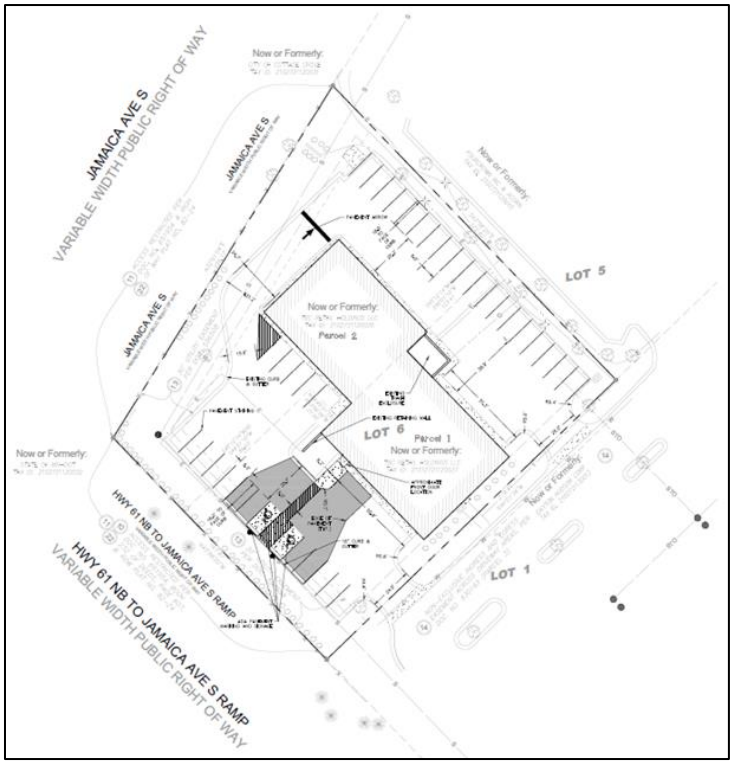
1. *The proposed use shall be consistent with the Comprehensive Plan.*
2. *The proposed use shall not negatively impact the health, safety and general welfare of occupants of surrounding lands.*
3. *Adequate public facilities and services shall be able to be provided to the site where the use is proposed, and/or existing infrastructure shall be able to absorb the additional demand for public services such as utilities, streets, parks, schools, etc.*

4. *Incompatible impacts of the proposed use shall be screened and buffered from adjacent property and the surrounding neighborhood. The City Council may require additional landscaping or screening above that required in the Zoning Code.*
5. *The site or building associated with the proposed use meets or exceeds the architectural design and landscaping standards for the district in which it is located. The City Council may require additional architectural standards above those required in the Zoning Code.*
6. *The use is consistent with the purposes of the Zoning Code and the purposes of the zoning district in which the applicant intends to locate the proposed use.*
7. *The generation and characteristics of traffic associated with the use and its impact on traffic volumes and safety associated with driveway locations, existing and proposed capacity on adjacent roads, sidewalks, and trail connections can be adequately mitigated.*
8. *Floodplain standards shall follow City Code Title 11, Chapter 10.*

Upon review of the application, the proposed use meets the forementioned criteria.

Parking

City Code Title 11-3-4 states that auto repair uses require 3 parking stalls per auto bay, plus 1 parking stall per employee. The Applicant has indicated a total of 4 auto bays and staffing of 15 employees; therefore, the minimum number of required stalls is 27. The proposed site plan indicates a total of 38 parking stalls, thus meeting the minimum required number of stalls. The existing parking lot layout consists of 34 total stalls. The Applicant is proposing to restripe the parking lot, which will result in an increase in the number of stalls by 4. This is due to the change of diagonal stalls to straight stalls along the northeastern property line.

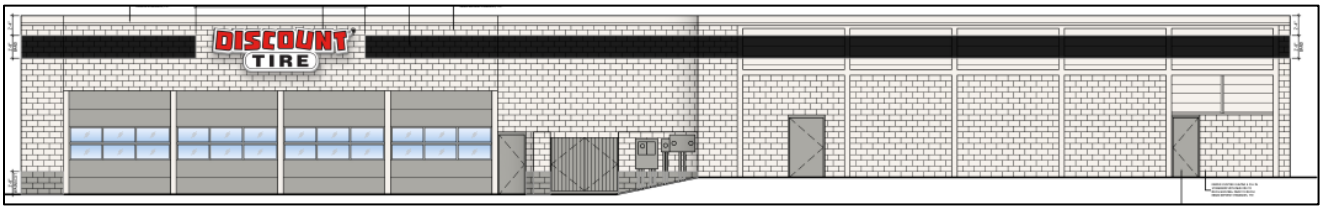


Proposed Site Plan with Updated Parking Stall Striping

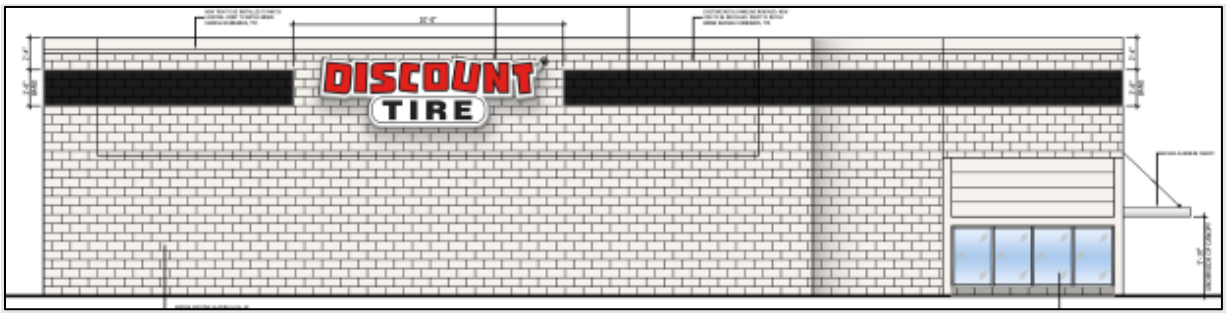
Architecture

The Applicant is proposing to utilize the existing building but will provide minor architectural elevation updates. These updates include new paint, trim, and an updated storefront with a metal canopy overhang.

Southwest Building Elevation



Northeast Building Elevation

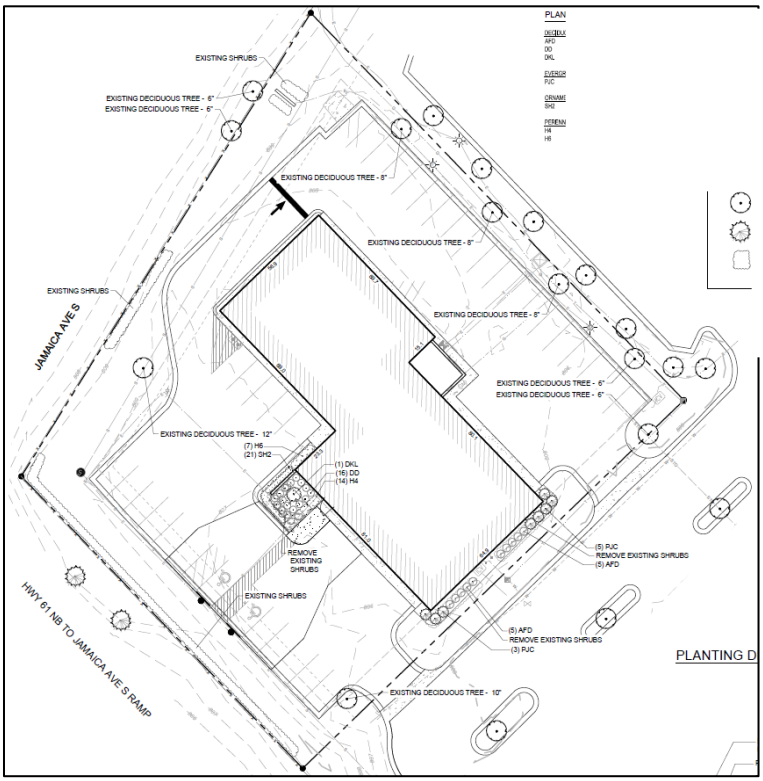


Southeast Building Elevation

Northwest Building Elevation

Landscaping

The Applicant is proposing to utilize the existing site layout but has submitted a detailed landscape plan. The plan indicates the planting of 35 shrubs, 21 ornamental grasses, and 21 perennials. In addition, the Applicant has indicated the intent to preserve existing trees onsite that are in good health.



Landscape Plan

Utilities

The subject property is located within the Metropolitan Urban Service Area (MUSA). The property is already connected to City utilities and no changes are being proposed for utility connections on the site.

Surface Water Management/Grading

The site is currently graded to meet the surface water management requirements established by the State, Watershed District, and the City's Surface Water Management Plan. No changes are proposed to site grading or site imperviousness therefore changes to site stormwater management are unnecessary.

Development Fees

All applicable development fees have been paid at the time of original development; therefore, no additional development fees are required as part of this proposal.

Public Hearing Notices

The public hearing notice for the November 27, 2023, Planning Commission meeting was published in the *Saint Paul Pioneer Press* and mailed on January 10, 2024, to 13 property owners that are within 500 feet of the proposed project. Staff has not received any comments at the time of writing the report.

Recommendation

That the Planning Commission recommend that the City Council approve the Conditional Use Permit for a minor automotive repair use to be located at 8647/8649 East Point Douglas Road South subject to the following conditions:

1. The project shall be completed in accordance with the plans submitted as amended by the conditions of approval. Any significant changes to the plans, as determined by the planning staff, shall require review and approval by the Planning Commission and City Council.

2. The Conditional Use Permit approvals shall expire one (1) year from the date of City Council approval unless a building permit has been requested or a time extension has been granted by the City Council. The City Council may extend the expiration date of such approval upon written application by the person to whom the approval was granted.

3. Prior to the issuance of a building permit, the two lots shall be combined, and a copy of the executed lot combination supplied to the City.

4. All applicable permits (i.e.; building, electrical, grading, right of way and mechanical) and a commercial plan review packet must be completed, submitted, and approved by the City prior to the commencement of any construction activities. Detailed construction plans must be reviewed and approved by the Building Official and Fire Marshal.

5. The grading and erosion control plan for the site must comply with NPDES II Permit requirements. Erosion control devices must be installed prior to commencement of any grading activity. Erosion control must be performed in accordance with the recommended practices of the “Minnesota Construction Site Erosion and Sediment Control Planning Handbook” and the conditions stipulated in Title 9-7-1, Erosion Control During Construction, of the City’s Subdivision Ordinance. The Applicant shall be responsible for the costs for the City to inspect the site in relation to erosion control conformance.

6. Rubbish, waste, and recycling containers shall be stored within an appropriately sized enclosed structure compliant with City ordinance screening requirements and shall always be maintained so as not cause odors or other public nuisances.

7. The Applicant is responsible for removing debris from all adjacent public and private roadways during their grading and construction process. The adjacent streets shall be swept clean daily or as needed.

8. Signage is not approved as part of this application. All signage shall meet the requirements of the sign ordinance and require a separate building permit.

9. Exterior storage of tires, wheels, and other items/materials is prohibited.

10. An ingress and egress easement shall be maintained at all times between property owners to allow for access to the site.

Prepared by
Conner Jakes
Associate Planner

Attachments
Narrative
Architectural Elevations
Engineering Plans

raSmith

CREATIVITY BEYOND ENGINEERING

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(630) 405-5722 | rasmith.com

November 1, 2023

On behalf of Halle Properties, L.L.C., R.A. Smith, Inc. is pleased to present the attached material for a Conditional Use Permit for a Discount Tire store to be located at 8647 & 8649 East Point Douglas Road South. A Conditional Use Permit is required for the operation of a tire store.

The exiting building is a former Big O's tire store, roughly 9,212 square feet in size. Discount Tire proposes to reimage the building to its current corporate standards. New signage, fresh coat of paint on the exterior and considerable work on the interior. New tire storage will be indoors via a racking system adjacent to the service bays. Used tire storage is segregated in its own storage area and no tires are stored outside. Generally new tires are delivered twice a week via a tractor trailer, and used tires are removed twice a week by a local recycling contractor using a box truck.

Discount Tire only sells, installs and services tires and wheels. No automotive repair, oil changes or body work is ever done at a Discount Tire location. The focus is solely on tires, wheels and world class customer service. As a benefit to the general public, this store will provide complimentary air checks for any driver who pulls in and requests the service.

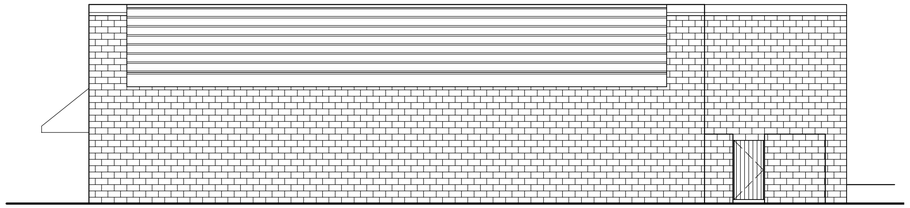
This location that Halle Properties has selected meets their internal site selection criteria and will be complimentary to nearby commercial developments. With limited business hours and low traffic volumes, open Monday to Friday from 8 AM to 6 PM and Saturday from 8 AM to 5 PM, it's anticipated that the proposed store will not have a negative impact on traffic.

Staffing for this store is typically 6-8 sales/managerial and 8-12 technicians, with the busiest shifts being on Friday and Saturday. The site is designed to accommodate employee vehicles as well as those of customers dropping their vehicles off for service and those who elect to wait to have their tires installed.

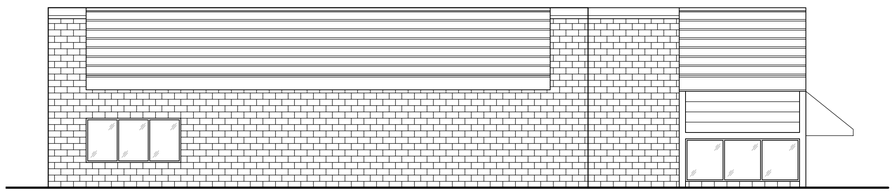
At your convenience, R.A. Smith will be more than happy to answer any questions or comments.

Respectfully,

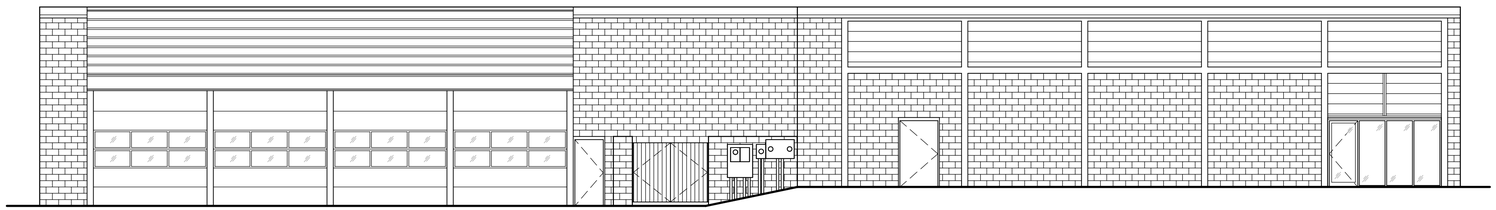
Steven McCleary
Site Development Specialist



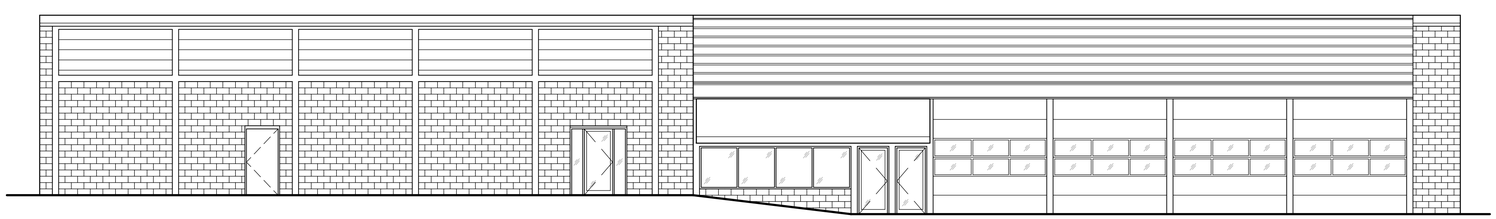
5 EXISTING NORTH ELEVATION
1/8" = 1'-0"



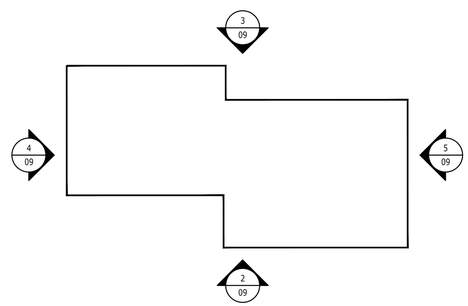
4 EXISTING SOUTH ELEVATION
1/8" = 1'-0"



3 EXISTING EAST ELEVATION
1/8" = 1'-0"



2 EXISTING WEST ELEVATION
1/8" = 1'-0"



1 ELEVATION KEY PLAN
N.T.S.

NORTH

Design Forum Architects Inc.
2056 BYERS RD
Miamisburg, OH 45342
Tel: (844) 804-7700
Donald J. Rethman
Architect In Charge
License: xxxx

DISCOUNT TIRE

MTM 13043
8647 E Point Douglas Road S
Cottage Grove, MN 55016

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

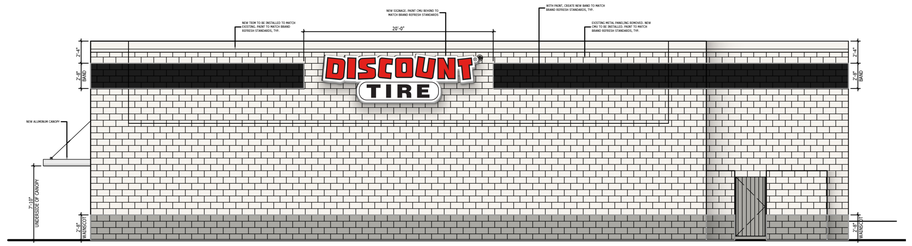
© 2022 CHANGEUP INC.

No.	Description	Date

PROJECT NUMBER	DTXXXXX
DATE	10/25/2023
DRAWN BY	DL
CHECKED BY	XXX / XXX

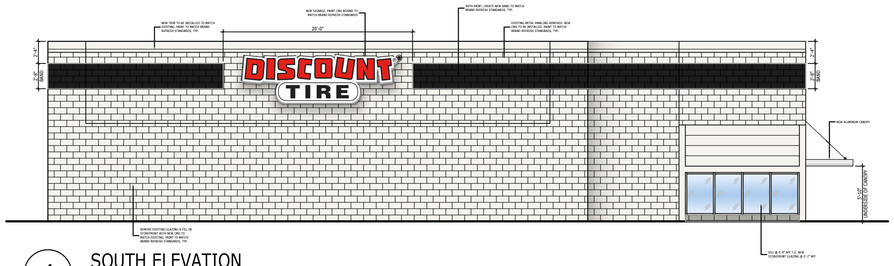
SHEET NAME
EXISTING EXTERIOR ELEVATIONS

SHEET #
01



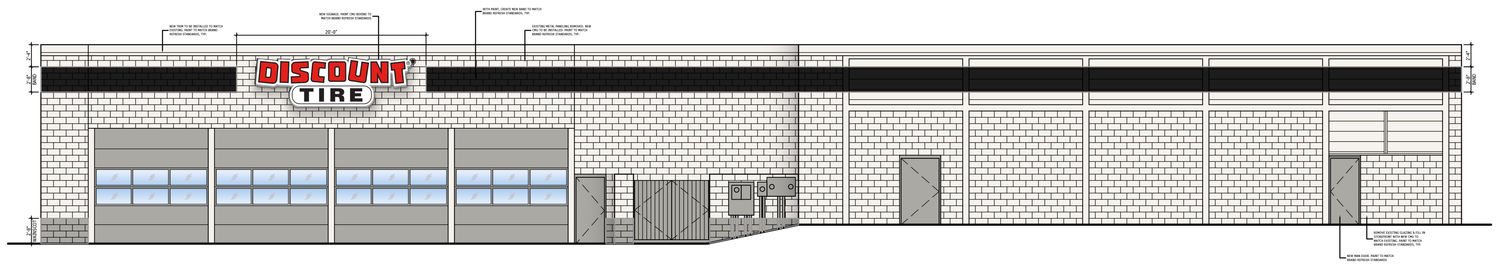
5 NORTH ELEVATION

1/8" = 1'-0"



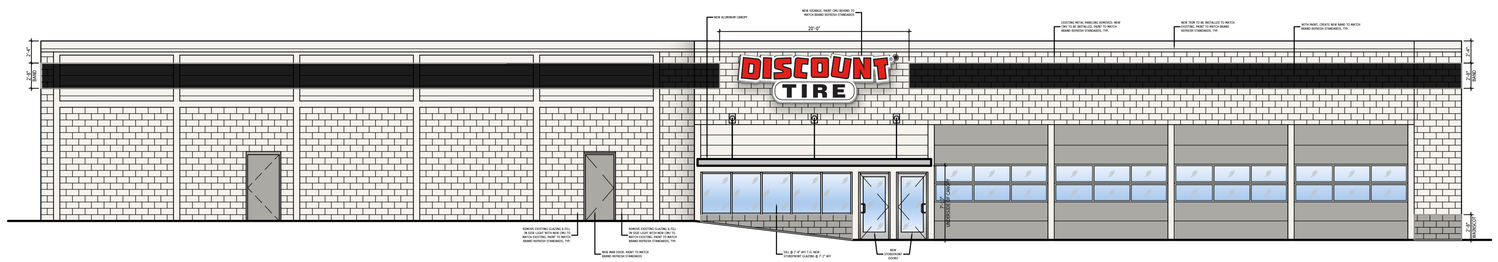
4 SOUTH ELEVATION

1/8" = 1'-0"



3 EAST ELEVATION

1/8" = 1'-0"



2 WEST ELEVATION

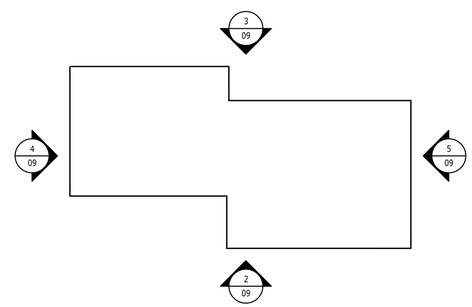
1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE

	CODE	MATERIAL	MANUFACTURER	PRODUCT / COLOR	LOCATION
	CLAD-1	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BONE WHITE	EXTERIOR - FRAME
	CLAD-1A	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE OYSTER (ALTERNATE)	EXTERIOR - FRAME
	CLAD-2	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE PATRIOT RED	EXTERIOR - FRAME
	CLAD-3	ACM	3A COMPOSITES	ALUCOBOND PLUS; MATTE BRUSHED STAINLESS	EXTERIOR - CANOPY
	CLAD-4	CORRUGATED METAL	ATLAS INTERNATIONAL	CORRUGATED PANEL, R 40 ALUMINUM, BLACK (02)	EXTERIOR
	P-1	PAINT	SHERWIN WILLIAMS	PAINT / SW 7650 ELLIE GRAY; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-1A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7504 KEYSTONE GRAY; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	P-2	PAINT	SHERWIN WILLIAMS	PAINT / SW 7104 COTTON WHITE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-2A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7568 NEUTRAL GROUND (LRV 70); EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	P-9	PAINT	SHERWIN WILLIAMS	PAINT / SW 6258 TRICORN BLACK; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS	EXTERIOR
	P-9A	PAINT	SHERWIN WILLIAMS	PAINT / SW 7069 IRON ORE; EMERALD EXTERIOR ACRYLIC LATEX; SEMI GLOSS (ALTERNATE)	EXTERIOR
	TRIM-1	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; MATCH SW 7104 COTTON WHITE, OR ALTERNATE COLOR OF MASONRY BELOW	EXTERIOR - PARAPET CAP
	TRIM-2	CORRUGATED METAL TRIM	ATLAS INTERNATIONAL	ELITE TRIM SERIES; BLACK (02)	EXTERIOR
	TRIM-3	METAL CAP	ATLAS INTERNATIONAL	METAL PARAPET CAP; BLACK (02)	EXTERIOR - PARAPET CAP
	TRIM-4	METAL TRIM	LONGBOARD PRODUCTS	9" LINK & LOCK SERIES; SLATE GREY	EXTERIOR - WALL TRIM

SHEET NOTES

1. MAINTAIN EXISTING EIFS, CMU, AND/OR OTHER BUILDING MATERIAL, UNLESS OTHERWISE NOTED. PAINT AS INDICATED TO MATCH BRAND REFRESH STANDARDS
2. NEW SIGNAGE TO BE INSTALLED
3. EXISTING OVERHANG AND/OR CANOPY TO BE REMOVED. UPDATE AND PAINT AS INDICATED
4. NEW ALUMINUM CANOPY TO BE INSTALLED
5. NEW STOREFRONT TO BE INSTALLED



1 ELEVATION KEY PLAN

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Cottage Grove, MN 55016

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No.	Description	Date

PROJECT NUMBER	DTXXXXX
DATE	10/25/2023
DRAWN BY	DL
CHECKED BY	XXX / XXX

SHEET NAME

EXTERIOR ELEVATIONS

SHEET #

09

CIVIL ENGINEER/LANDSCAPE ARCHITECT:

raSmith
CREATIVITY BEYOND ENGINEERING

16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

PROJECT MANAGER: ROBERT J. HARLEY
262-317-3266

PROJECT ENGINEER: CHRISTOPHER B. WHITE, P.E.
262-317-3286

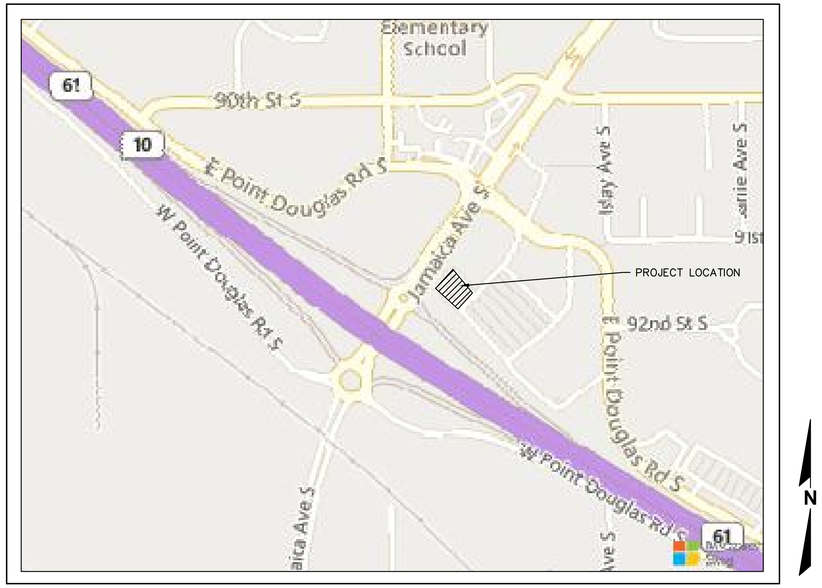
LANDSCAPE ARCHITECT: NANCY PARDUHN WILSON
262-317-3343

DISCOUNT TIRE

8647 E. POINT DOUGLAS ROAD
COTTAGE GROVE, MN 55016

ENGINEERING PLANS

VICINITY MAP



PLAN INDEX

SHEET NO.	DESCRIPTION
C000	TITLE SHEET
---	ALTA/NSPS LAND TITLE SURVEY
C100	DEMOLITION AND EROSION CONTROL PLAN
C200	SITE PLAN
C300	TRUCK TURN SU-30
C400	GRADING PLAN
C500	PLAN DETAILS
C501	SPECIFICATIONS
L100	LANDSCAPE PLAN

DEVELOPER/OWNER:

HALLE PROPERTIES, L.L.C.
20225 N. SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85255
PH.: (480) 606-6000
FAX: (480) 606-4370

PLAN DATE: 10/30/2023

REVISION	ISSUE DATE	ISSUED SHEETS	ISSUED FOR

GSOC GOPHER STATE ONE CALL

R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC.

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DATE	DESCRIPTION

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

TITLE SHEET

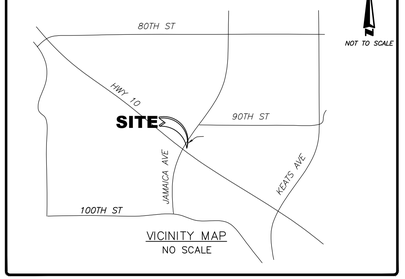
© COPYRIGHT 2023
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: N.T.S.
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C000

K:\3230195\Dwg\Sheets\3230195_TS01.dwg, TITLE SHEET, 10/30/2023 2:56:38 PM, emg2

VICINITY MAP



VICINITY MAP
NO SCALE

ZONING INFORMATION

ITEM	REQUIRED	CONTACT: CONNER JAKE
ZONING DESIGNATION	MU (MIXED-USE)	REPORT DATE: 10/12/2023
MINIMUM LOT AREA (SQ. FT.)	N/A	REPORT #:
MINIMUM FRONTAGE	N/A	
MINIMUM LOT WIDTH	100'	
MAX IMPERVIOUS COVERAGE	70%	PARKING REQUIREMENTS: City Code Title 11-3-4 does not list a specific number of parking stalls required for the proposed automobile car wash use.
MAX BUILDING HEIGHT	55'	
MINIMUM SETBACKS	N/A	
FRONT	25 FEET	
SIDE	25 FEET	
REAR/SIDE	10 FEET	

NOTE: Proposed Carwash Facility at 8647/8649 East Point Douglas Road South – Site Plan Review, Planned Unit Development, Conditional Use Permit

SURVEYOR'S NOTES

PER TABLE A ITEM 1: MONUMENTS HAVE BEEN PLACE AT ALL MAJOR CORNERS OF THE BOUNDARY OF THE SURVEYED PROPERTY, UNLESS OTHERWISE SHOWN HEREON

PER TABLE A ITEM 2: 647-8649 E. POINT DOUGLAS RD, COTTAGE GROVE, MN WAS DISCLOSED IN DOCUMENTS PROVIDED AND OBSERVED AS POSTED AT THE TIME OF THE SURVEY.

PER TABLE A ITEM 4: PROPERTY CONTAINS: 0.98 ACRES (42,845 SQ. FT.) OF GROSS LAND AREA

PER TABLE A ITEM 5: ELEVATIONS WERE DERIVED USING THE MNDOT VRS NETWORK NAVD(88) DATUM.

PER TABLE A ITEM 8: SUBSTANTIAL ABOVE GROUND FEATURES THAT WERE OBSERVED ON THE SUBJECT PARCEL, SUCH AS PARKING AREAS, DRIVES, WALKS, PLANTERS/LANDSCAPE AREAS AND OTHER, HAVE BEEN LOCATED AS SHOWN HEREON. NOTE: THERE WERE NO OBSERVED SUBSTANTIAL AREAS OF REFUSE ON THE SUBJECT PARCEL PER THE DATE OF THIS SURVEY.

PER TABLE A ITEM 9: THERE ARE 32 STANDARD PARKING SPACES, 2 HANDICAPPED PARKING SPACES. FOR A TOTAL OFF 34 PARKING SPACES WITHIN SUBJECT PROPERTY

PER TABLE A ITEM 10: THERE WERE NO PARTY WALLS OBSERVED WITH RESPECT TO ADJOINING PROPERTIES

PER TABLE A ITEM 11: THE SURVEY SHOWS THE LOCATION OF UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY AS DETERMINED BY OBSERVED EVIDENCE COLLECTED PURSUANT TO ALTA SECTION 5 E IV TOGETHER WITH EVIDENCE FROM PLANS REQUESTED BY THE SURVEYOR AND OBTAINED FROM THE UTILITY COMPANIES, OR PROVIDED BY THE CLIENT AND MARKINGS REQUESTED BY THE SURVEYOR PURSUANT TO A 811 UTILITY LOCATE OR SIMILAR REQUEST

PER TABLE A ITEM 13: ADJOINING OWNERSHIP INFORMATION SHOWN HEREON WAS OBTAINED FROM THE WASHINGTON COUNTY WEBSITE. OWNERSHIP INFORMATION IS SUBJECT TO REVISION UPON RECEIPT OF A TITLE SEARCH BY A TITLE INSURANCE COMPANY.

PER TABLE A ITEM 16: THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED AT THE TIME OF THE SURVEY.

PER TABLE A ITEM 17: THERE WAS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS AND WE ARE NOT AWARE OF ANY PROPOSED CHANGES IN STREET RIGHT OF WAY LINES.

PER TABLE A ITEM 18: PLOTTABLE OFFSITE APPURTENANT EASEMENTS DISCLOSED IN DOCUMENTS PROVIDED HAVE BEEN SHOWN HERE IF APPLICABLE.

1. BASED ON OBSERVED EVIDENCE ONLY, THE SITE DOES NOT CONTAIN ANY CEMETERIES, BURIAL GROUNDS, OR INDIVIDUAL GRAVE SITES.

2. BASED ON OBSERVED EVIDENCE ONLY THERE IS NO EVIDENCE OF LAKES, CREEKS OR STREAMS WITHIN SUBJECT PROPERTY.

3. ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING, EASEMENTS, SERVITUDES, AND ENCROACHMENTS; ARE BASED SOLELY ON ABOVE GROUND, VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.

4. THE RECORD DESCRIPTIONS OF THE SUBJECT PROPERTY FORM A MATHEMATICALLY CLOSED FIGURE WITH NO GAPS, OR GORES.

5. THIS BEARING SYSTEM IS BASED ON WASHINGTON COUNTY COORDINATE SYSTEM / NAD83(2011).

6. PROPERTY HAS DIRECT AND PHYSICAL ACCESS TO AND FROM E POINT DOUGLAS ROAD, VIA EASEMENT AGREEMENT PER DOC. NO. 630193 & 658517 (PARCEL 3). A DULY DEDICATED PUBLIC RIGHT OF WAY.

FLOOD INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN ZONE "X", AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 27163C0410E, WHICH BEARS AN EFFECTIVE DATE OF 2/3/2010, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE. ZONE "X" DENOTES AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

NOTES CORRESPONDING TO SCHEDULE "B" ITEMS

THE BELOW IS A LIST OF NONE SURVEY RELATED SCHEDULE B ii ITEMS;

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met. (NO PLOTTABLE INFORMATION)

2. Rights or claims of parties in possession not shown by the Public Records. (NO PLOTTABLE INFORMATION)

3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land. (NO PLOTTABLE INFORMATION)

4. Easements, or claims of easements, not shown by the Public Records. (NO PLOTTABLE INFORMATION)

5. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records. (NO PLOTTABLE INFORMATION)

6. Taxes or special assessments which are not shown as existing liens by the Public Records. (NO PLOTTABLE INFORMATION)

7. General and special taxes and assessments as hereafter listed, if any (all amounts shown being exclusive of interest, penalties and costs):

A. Real estate taxes payable in 2023 are $19,016.00 and are half paid. Base tax $18,870.92 Property Identification No. 21.027.21.12.0027 (Parcel 1)

Real estate taxes payable in 2023 are $13,336.000 and are half paid. Base tax $13,212.76 Property Identification No. 21.027.21.12.0026 (Parcel 2)

NOTE: There are no delinquent taxes of record.
NOTE: The above tax amount may include annual recurring fees charged by the municipality and/or county, which are automatically certified to the real estate taxes.
NOTE: First half are due and payable on or before May 15, 2023; second half are due and payable on or before October 15, 2023.
B. Levied or pending assessments of record if any.
NOTE: An assessment search has been requested and the results of that search will follow by a commitment supplement.

8. Rights of tenants in possession under the terms of unrecorded leases. (NO PLOTTABLE INFORMATION)

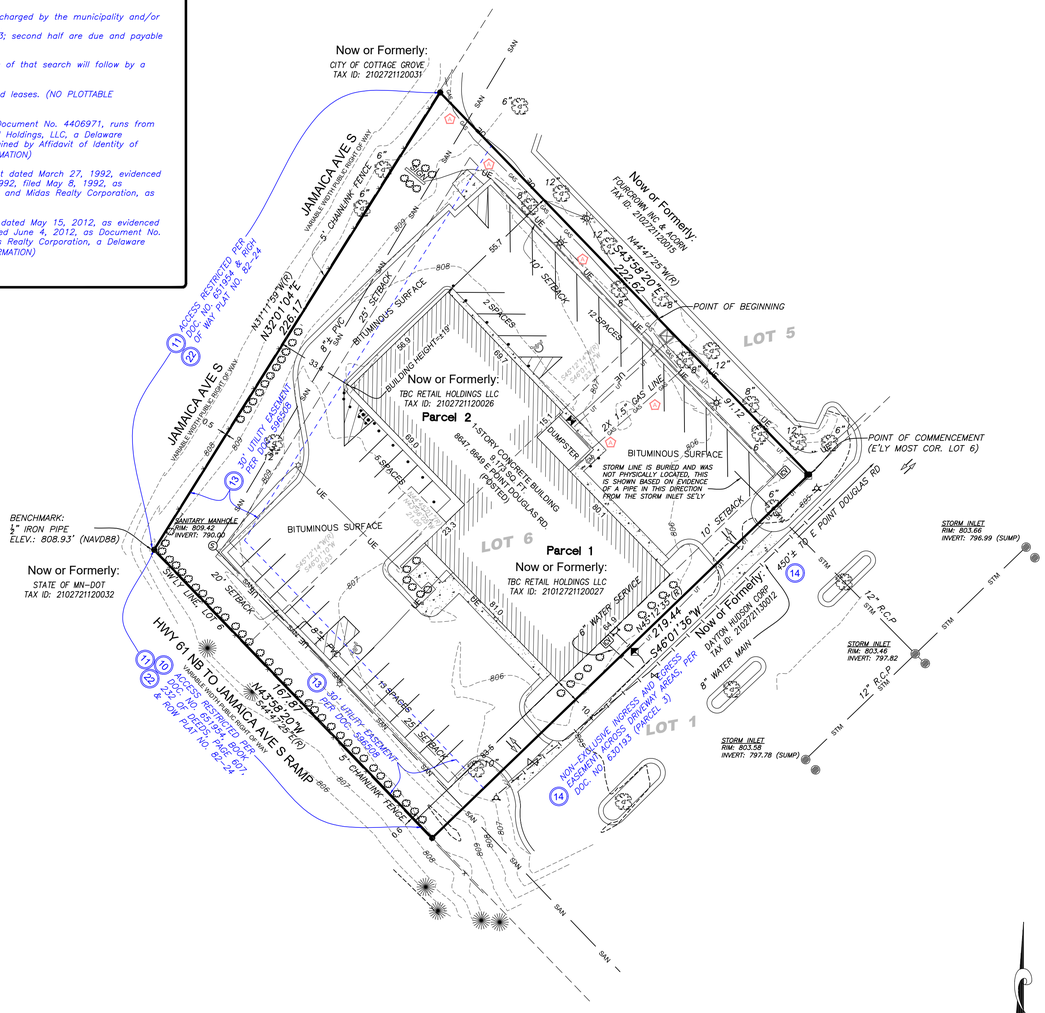
9. Warranty Deed dated May 26, 2023, filed May 30, 2023, as Document No. 4406971, runs from NTW, LLC, a Delaware limited liability (sic), Grantor, to TBC Retail Holdings, LLC, a Delaware corporation. This should be corrected by corrective deed or explained by Affidavit of identity of record as appropriate. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

17. Terms and conditions of unrecorded Optional Lease Agreement dated March 27, 1992, evidenced in Memorandum of Optional Lease Agreement dated March 27, 1992, filed May 8, 1992, as Document No. 694531, by and between Peter Houser, as Lessor, and Midas Realty Corporation, as Lessee. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

21. Terms and conditions of unrecorded Option and Shop Lease dated May 15, 2012, as evidenced Memorandum of Option and Shop Lease dated May 15, 2012, filed June 4, 2012, as Document No. 3891074, by and between Peter R. Houser, as Lessor, and Midas Realty Corporation, a Delaware corporation, as Lessee. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

LEGEND

- ELECTRIC TRANSFORMER
- ELECTRIC METER
- UTILITY PEDESTAL
- AC UNIT
- LIGHT POLE
- BOLLARD POST
- GAS METER
- TREE-DECIDUOUS
- TREE-EVERGREEN
- SHRUBS
- IRON MONUMENT FOUND
- FIRE HYDRANT
- AUTO SPRINKLER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- STORM INLET ROUND
- SANITARY MANHOLE
- HANDICAPPED PARKING
- NO PARKING
- SITE ACCESS
- CONCRETE
- SANITARY SEWER
- WATERMAIN
- UNDERGROUND ELECTRIC
- UNDERGROUND UTILITY (CABLE/TELE)
- UNDERGROUND GAS



SIGNIFICANT OBSERVATIONS

⬠ GAS MAIN CROSSES ONTO SUBJECT PROPERTY WITHOUT THE BENEFIT OF A KNOWN EASEMENT

TITLE DESCRIPTION

Parcel 1:
All of that part of Lot 6, Block 1, Cottage Grove Plaza, lying Southeasterly of the following described line: Commencing at the most Easterly corner of said Lot 6; thence North 44 degrees 47 minutes 25 seconds West, assumed bearing along the Northeasterly line of said Lot 6, a distance of 91.12 feet to the point of beginning; thence South 45 degrees 12 minutes 14 seconds West, 123.41 feet; thence North 44 degrees 45 minutes 01 seconds West, a distance of 21.00 feet; thence South 45 degrees 12 minutes 14 seconds West, a distance of 96.03 feet to the Southwesterly line of said Lot 6 and there terminating. Washington County, Minnesota

Abstract Property

Parcel 2:

All that part of Lot 6, Block 1, Cottage Grove Plaza, lying Northwesterly of the following described line: Commencing at the most Easterly corner of said Lot 6; thence North 44 degrees 47 minutes East 25 seconds West, assumed bearing along the Northeasterly line of said Lot 6, a distance of 91.12 feet to the point of beginning; thence South 45 degrees 12 minutes East 14 seconds West, a distance of 123.41 feet; thence North 44 degrees 45 minutes 01 seconds West, a distance of 21.00 feet; thence South 45 degrees 12 minutes 14 seconds West, a distance of 96.03 feet to the Southwesterly line of said Lot 6 and there terminating. Washington County, Minnesota

Abstract Property

Parcel 3:

Ingress and egress easement contained in Operation and Easement Agreement dated April 30, 1990, filed May 8, 1990, as Document No. 630193. Amended by First Amendment to Operation and Easement Agreement dated March 22, 1991, filed April 25, 1991, as Document No. 658517.

THE SURVEYED PROPERTY IS THE SAME PROPERTY AS SHOWN ON FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. CP72596 HAVING AN EFFECTIVE DATE OF SEPTEMBER 4, 2023.

NOTES CORRESPONDING TO SCHEDULE "B" ITEMS

9. Warranty Deed dated May 26, 2023, filed May 30, 2023, as Document No. 4406971, runs from NTW, LLC, a Delaware limited liability (sic), Grantor, to TBC Retail Holdings, LLC, a Delaware corporation. This should be corrected by corrective deed or explained by Affidavit of identity of record as appropriate. (AFFECTS PROPERTY, NO PLOTTABLE INFORMATION)

10. Right of access to Trunk Highway No. 61, acquired by the State of Minnesota, contained in Final Certificate dated July 27, 1960, filed September 20, 1960, in Book 232 of Deeds, Page 607. (AFFECTS PROPERTY, PLOTTED AND SHOWN HEREON)

11. Right of access to and from Trunk Highway No. 61 and Jamaica Avenue, acquired by the State of Minnesota, contained in Partial Final Certificate dated April 1, 1985, filed January 28, 1991, as Document No. 651954, and as evidenced on Minnesota Department of Transportation Right of Way Plat No. 82-22 filed September 11, 1978, as Document No. 379983. (PLOTTED AND SHOWN HEREON)

12. Terms and conditions of Amended and Restated Declaration dated August 17, 1989, filed August 23, 1989, as Document No. 608060.

Being an amendment and restatement of the following:
Declaration dated December 15, 1988, filed December 21, 1988, as Document No. 590319. (AFFECTS SUBJECT PROPERTY, NO PLOTTABLE INFORMATION. BLANKET IN NATURE, SEE DOCUMENT FOR DETAILS)

13. Easement for utility and related purposes in favor of the City of Cottage Grove contained in Utility Easement Deed dated February 20, 1989, filed March 16, 1989, as Document No. 596508. (AFFECTS PROPERTY, PLOTTED AND SHOWN HEREON)

14. Terms, conditions, covenants, restrictions and provisions of and easements contained in Operation and Easement Agreement dated April 30, 1990, filed May 8, 1990, as Document No. 630193.

Amended by First Amendment to Operation and Easement Agreement dated March 22, 1991, filed April 25, 1991, as Document No. 658517. (AFFECTS SUBJECT PROPERTY, ALLOWS FOR ACCESS TO AND FROM PROPERTY VIA ADJACENT PARCEL "COMMON AREAS" THIS AGREEMENT IS NOT MATHEMATICALLY CONFINED THEREFOR NOT PLOTTED. SEE DOCUMENT FOR DETAILS. SEE SHEET 2 OF 2)

15. Restriction contained in that certain Warranty Deed dated March 31, 1991, filed April 25, 1991, as Document No. 658519. (AFFECTS SUBJECT PROPERTY, NO PLOTTABLE INFORMATION. BLANKET IN NATURE)

16. Terms and conditions of Development Agreement dated April 25, 1990, filed May 8, 1990, as Document No. 630192. (AFFECTS SUBJECT PROPERTY. NO PLOTTABLE INFORMATION, BLANKET IN NATURE)

17. (NOT SURVEY RELATED)

18. Terms, conditions and restrictions contained in Use Restrictions and Covenants dated March 27, 1992, filed May 8, 1992, as Document No. 694532. (AFFECTS SUBJECT PROPERTY, BLANKET IN NATURE)

19. Terms and conditions of Resolution No. 92-87 filed July 10, 1992, as Document No. 702080. (AFFECTS SUBJECT PROPERTY, BLANKET IN NATURE)

20. Terms and conditions of and easements for ingress, egress and temporary vehicluar parking contained in Declaration of Driveway and Parking Easement dated October 23, 1995, filed October 23, 1995, as Document No. 859742. (AFFECTS SUBJECT PROPERTY BLANKET IN NATURE OVER PARCEL 1 AND PARCEL 2, SEE DOCUMENT FOR ADDITIONAL DETAILS)

21. (NOT SURVEY RELATED)

22. Minnesota Department of Transportation Right of Way Plat No. 82-24 filed as Document No. 3855.36 (Amendment to Right of Way Plat No. 82-22). (AFFECTS SUBJECT PROPERTY, ACCESS RESTRICTED ALONG SOUTHERLY AND WESTERLY PROPERTY LINES)

1" = 30'
GRAPHIC SCALE
0 15' 30' 60'

ALTA/NSPS Land Title Survey

for

Discount Tire

NWS Project No. 23769
8647-8649 E. POINT DOUGLAS RD
COTTAGE GROVE, MN

BASED UPON TITLE COMMITMENT NO. 67353
OF STEWART TITLE GUARANTY COMPANY
BEARING AN EFFECTIVE DATE OF JANUARY 11, 2023

Surveyor's Certification

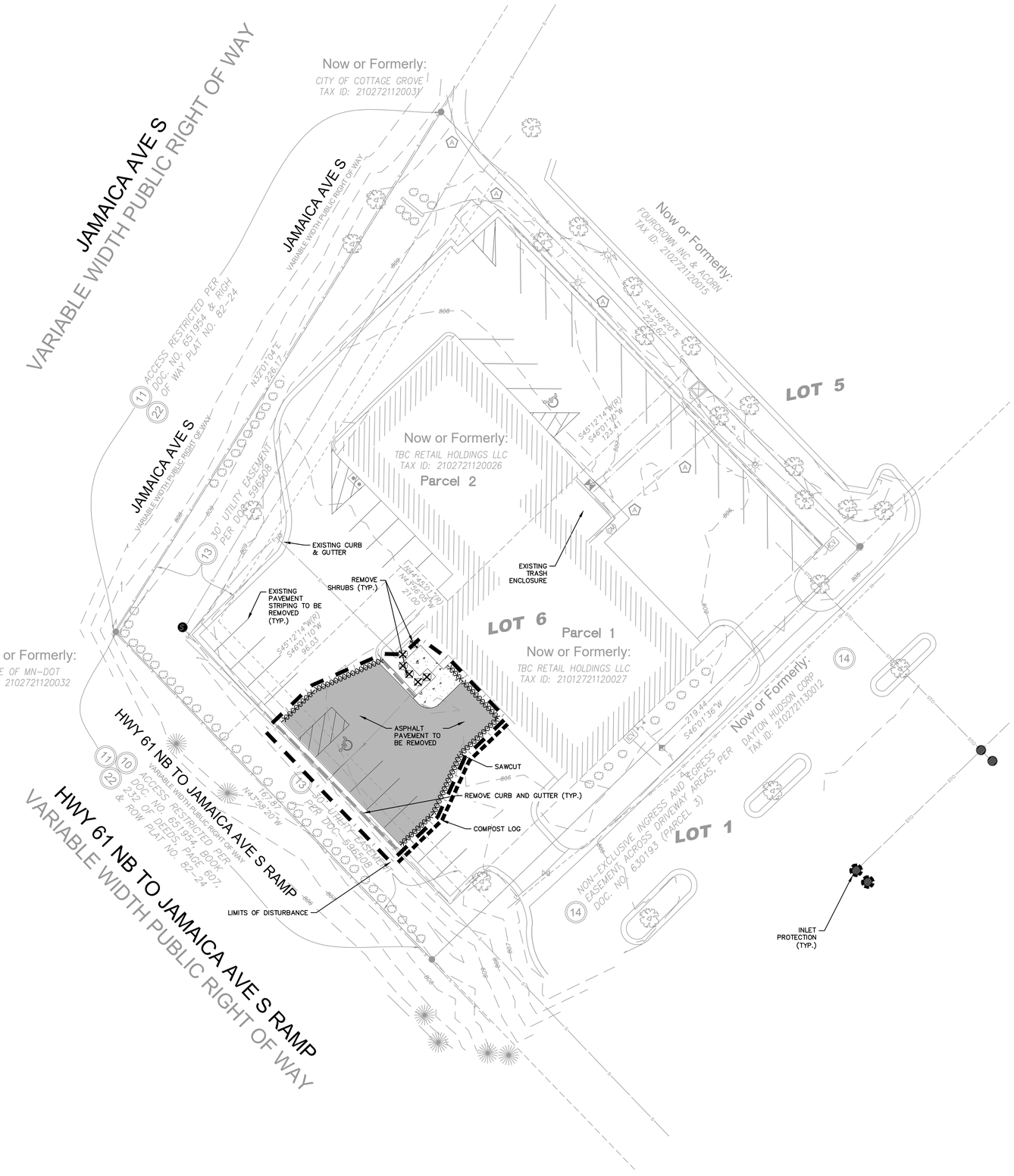
To: The Reinalt-Thomas Corporation, a Michigan corporation, Halle Properties, L.L.C., an Arizona limited liability company, including their subsidiaries, affiliates, successors and assignees and STEWART TITLE GUARANTY COMPANY.

THIS IS TO CERTIFY that this map or plat and the survey on which it is based were made in accordance with the 2021 minimum standard detail requirements for ALTA/NSPS land title surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 7a, 7b1, 7c, 8, 9, 10, 11a, 11b, 13, 14, 16, 17, 18, 19 and 20 of table A thereof. The field work was completed on 09/29/2023.

DATE

KALEB J. KADELBACH
LICENSE NO.: 57070
IN THE STATE OF MINNESOTA
DATE OF FIELD SURVEY: 09/29/2023
DATE OF LAST REVISION: 10/13/2023
NWS PROJECT NO.: 23769

NORTHWESTERN SURVEYING & ENGINEERING, INC.



LEGEND

- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- EXISTING ASPHALTIC PAVEMENT TO BE REMOVED
- REMOVE TREE/SHURB
- CURB & GUTTER TO BE REMOVED
- LIMITS OF DISTURBANCE = 0.09 ACRES
- ROCK LOG/COMPOST LOG
- SAW CUT
- STORM SEWER INLET PROTECTION

DEMOLITION NOTES TO CONTRACTOR

1. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL SITE AND DEMOLITION PERMITS.
2. THE DEMOLITION CONTRACTOR SHALL PREPARE AND MAINTAIN A PROJECT SAFETY PLAN. ALL SITE SAFETY EQUIPMENT AND MEASURES, INCLUDING FENCING, FIRE PROTECTION, AND THE LIKE ARE THE SOLE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR.
3. BEFORE PROCEEDING WITH ANY UTILITY CONSTRICTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.

EROSION CONTROL NOTES

1. EROSION CONTROL MEASURES MUST BE INSPECTED AND REPAIRED PER MPCA, COUNTY AND CITY STANDARDS (WHICH EVER IS MOST FREQUENT AND CONSERVATIVE).
2. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD OR SIDEWALK SHALL BE REMOVED BY STREET CLEANING, OTHER THAN FLUSHING, IMMEDIATELY.
3. CONTRACTOR SHALL KEEP A COPY OF THE EROSION CONTROL PLANS AT THE PROJECT SITE AND PROVIDE COMPLETED EROSION CONTROL CHECK SHEETS TO THE CONSTRUCTION INSPECTOR. COTTAGE GROVE AND MPCA MAY REQUEST INSPECTION REPORTS AT ANY TIME.
4. IF NEEDED, DEWATERING AS NEEDED TO BE DONE ACCORDING TO MPCA STANDARDS.
5. DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE (WINTER) OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM).
6. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL MEASURES AND PERFORMING MAINTENANCE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

GSOC GOPHER STATE ONE CALL

R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC.

ALL COPYRIGHTS TO THESE DRAWINGS ARE RESERVED. THEY MAY NOT BE COPIED, CHANGED, OR ASSIGNED TO ANY THIRD PARTY IN ANY MANNER WITHOUT OBTAINING THE EXPRESSED WRITTEN PERMISSION OF R.A.SMITH, INC.

DATE	DESCRIPTION

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

DEMOLITION AND EROSION CONTROL PLAN

© COPYRIGHT 2023
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C100

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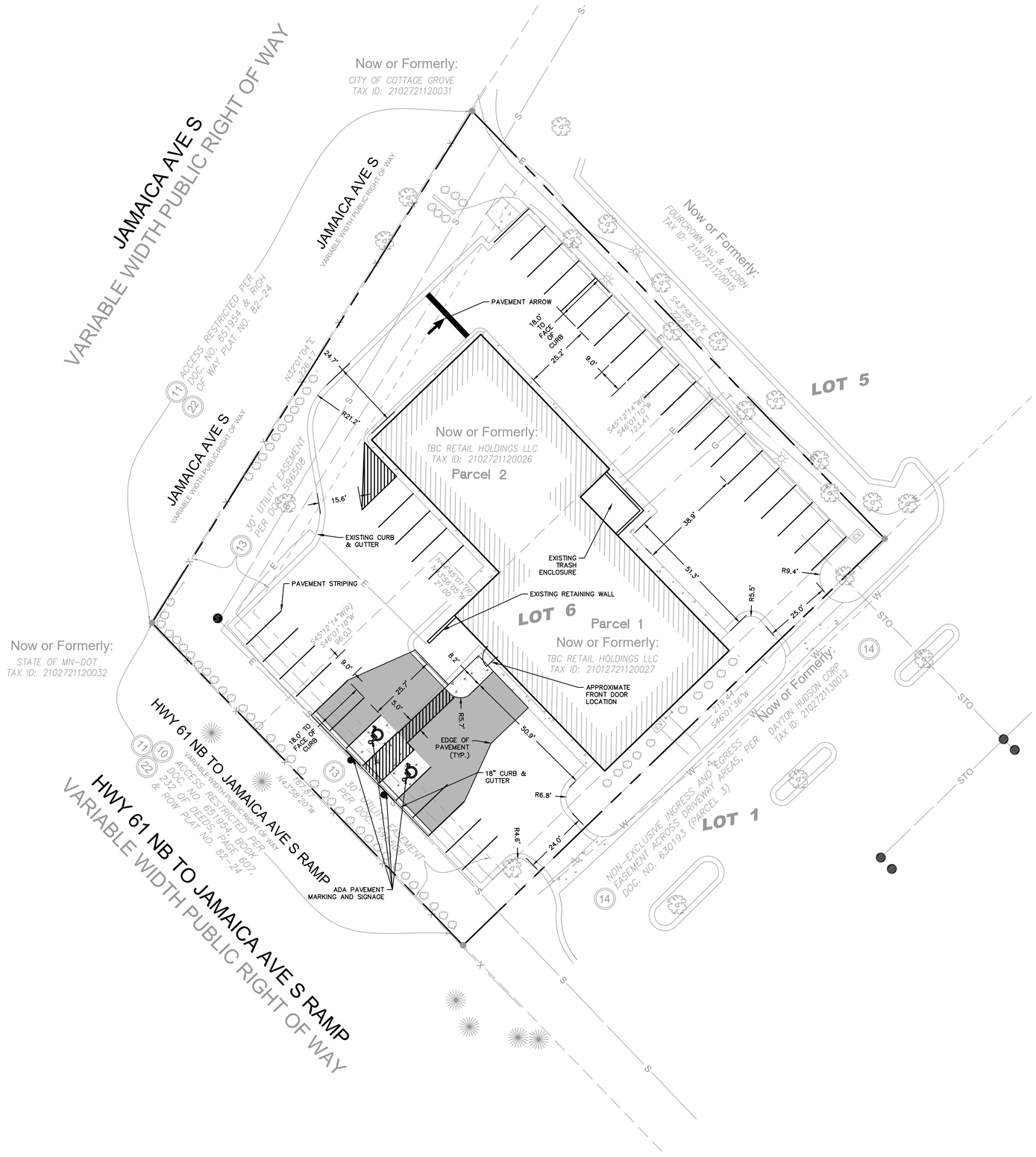

LEGEND

- PROPERTY LINE
- PROPOSED 18" CURB & GUTTER
- PROPOSED ASPHALT PAVEMENT – MATCH IN KIND
- PROPOSED CONCRETE PAVEMENT – MATCH IN KIND

GENERAL NOTES:

1. EXISTING TOPOGRAPHY OBTAINED BY NORTHWESTERN SURVEYING & ENGINEERING, INC. ON 09/29/2023.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSION OF ENTRANCES, VESTIBULES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
3. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE CITY OF COTTAGE GROVE EROSION CONTROL ORDINANCE AND STATE OF MINNESOTA TECHNICAL STANDARDS.
4. ALL DIMENSIONS AND CORRESPONDING HORIZONTAL CONTROL RELATED TO PAVING REPRESENT BACK OF CURB, ELEVATIONS AND CONTOURS REPRESENT FINISHED GRADES UNLESS OTHERWISE INDICATED. BUILDINGS ARE DIMENSIONED TO FACE OF BUILDING.
5. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
6. ALL SITE SIGNAGE MUST COMPLY WITH THE MOST RECENT EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PARKING STATISTICS

EXISTING PARKING	
REGULAR STALLS	32
ADA STALLS	2
TOTAL	34
REQUIRED PARKING	
3 PER BAY	4 BAYS x 3 = 12 PARKING STALLS
1 PER EMPLOYEE	15 EMPLOYEES X 1 PER EMPLOYEE = 15 PARKING STALLS
MINIMUM REQUIRED PARKING = 27	
PROPOSED PARKING	
REGULAR STALLS	36
ADA STALLS	2
TOTAL	38

EXISTING CONDITIONS	SQ.FT.	ACRES	COVERAGE
TOTAL AREA	42,845	0.98	
PERVIOUS SPACE	11,633	0.27	27.15%
IMPERVIOUS SPACE	31,212	0.72	72.85%
PROPOSED CONDITIONS			
PERVIOUS SPACE	11,714	0.27	27.15%
IMPERVIOUS SPACE	31,131	0.72	72.85%

GSOC GOPHER STATE ONE CALL

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DESCRIPTION	DATE

raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

SITE PLAN

© COPYRIGHT 2023
R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C200

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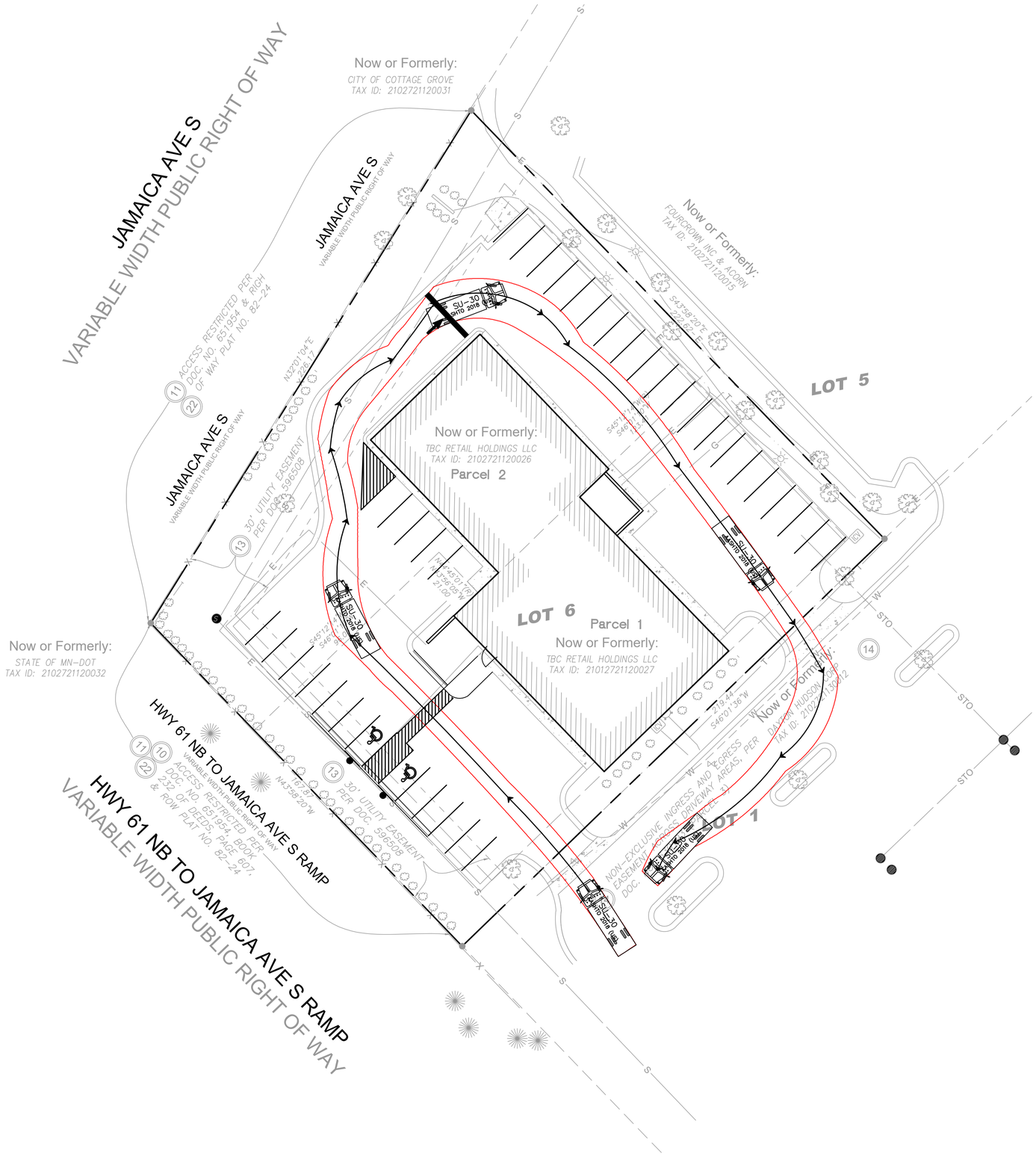

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rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

TRUCK TURN SU-30

GSOC GOPHER STATE ONE CALL

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R.A. Smith, Inc.

DATE:	10/30/2023
SCALE:	1" = 20'
JOB NO.	3230195
PROJECT MANAGER:	ROBERT J. HARLEY
DESIGNED BY:	EMG
CHECKED BY:	CBW
SHEET NUMBER	C300

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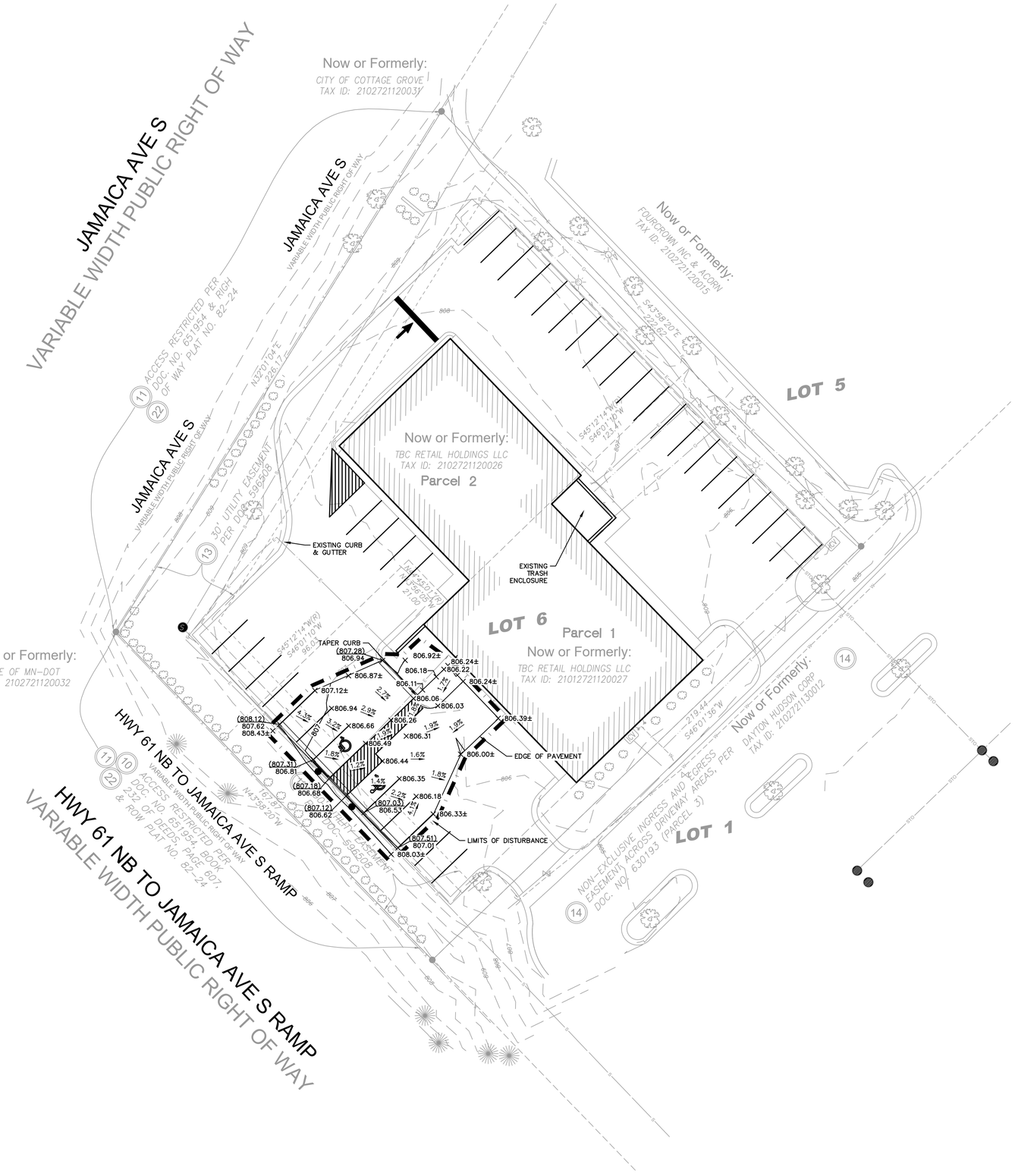

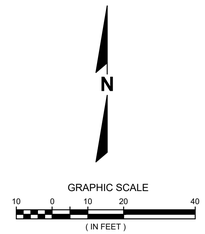

LEGEND

- 840.00 × — EXISTING SPOT ELEVATION
- 840 — EXISTING CONTOURS
- 840 — PROPOSED CONTOURS
- 840.00 × — PROPOSED SPOT GRADES
- (840.00) × — PROPOSED TOP OF CURB GRADES
- 840.00 ± × — MATCH INTO EXISTING
- ■ ● — PROPOSED STORM INLETS/MANHOLES
- LIMITS OF DISTURBANCE = 0.09 AC

GENERAL NOTES:

1. THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE D.O.T. STANDARD SPECIFICATIONS, LOCAL ORDINANCES AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE THE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEVIATE WATER PONDING.
3. SILT FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE THREAT OF EROSION HAS PASSED WITH THE APPROVAL OF THE GOVERNING AGENCY.
4. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
5. GRADING SHALL CONSIST OF CLEARING AND GRUBBING EXISTING VEGETATION, STRIPPING TOPSOIL, REMOVAL OF EXISTING PAVEMENT OR FOUNDATIONS, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE AND ON-SITE EARTHWORK BALANCE, GRADING THE PROPOSED BUILDING PADS AND PAVEMENT AREAS, SCARIFYING AND FINAL COMPACTION OF THE PAVEMENT SUBGRADE, AND PLACEMENT OF TOPSOIL.
6. NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
7. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL.
8. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE SIZE, LOCATION AND ELEVATION OF ALL UTILITIES.
9. ALL SIDEWALKS SHALL HAVE A MAXIMUM 2.0% CROSS SLOPE. VERTICAL DISCONTINUITIES MUST BE LESS THAN .25 INCHES. MAXIMUM 5% RUNNING SLOPE.
10. CONTRACTOR TO DETERMINE HIGH-SIDE VS LOW-SIDE CURB. OR SEND RFI TO ENGINEER FOR ASSISTANCE

DESCRIPTION	DATE

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16745 W. Bluemound Road
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rasmith.com
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Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

GRADING PLAN

GSOC GOPHER STATE ONE CALL

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R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C400

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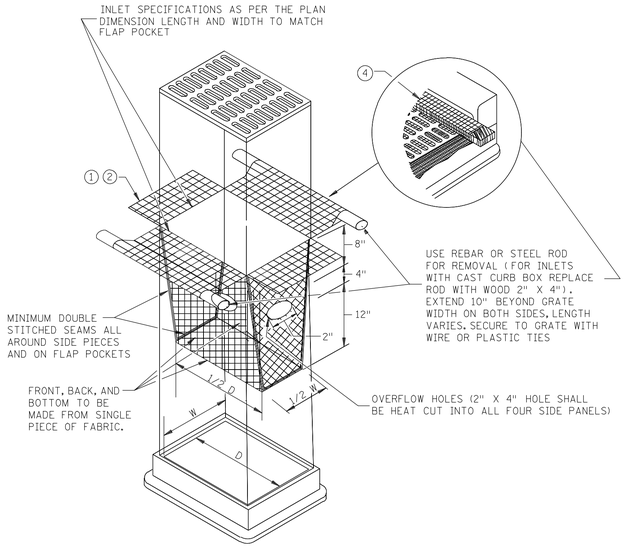
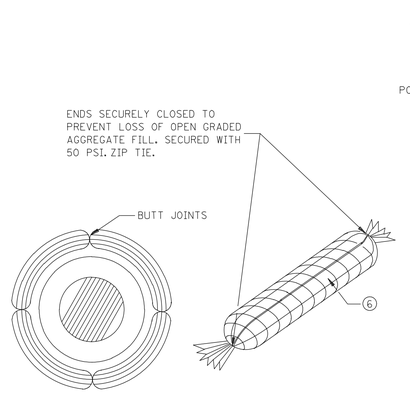
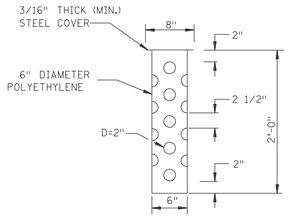


FILTER BAG INSERT ③

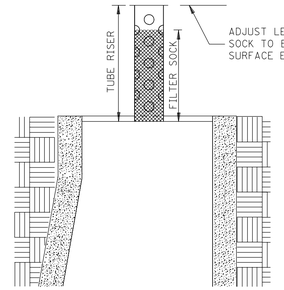
(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)



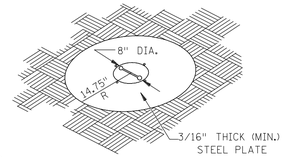
ROCK LOG/COMPOST LOG



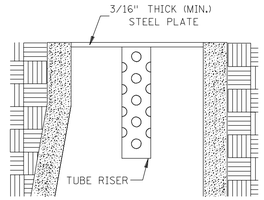
TUBE RISER



SECTION
(UP POSITION)

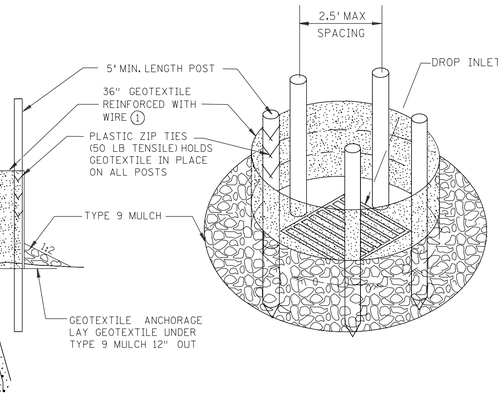


PERSPECTIVE VIEW



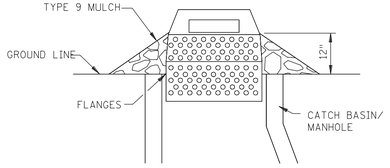
SECTION
(DOWN POSITION)

POP-UP HEAD



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS



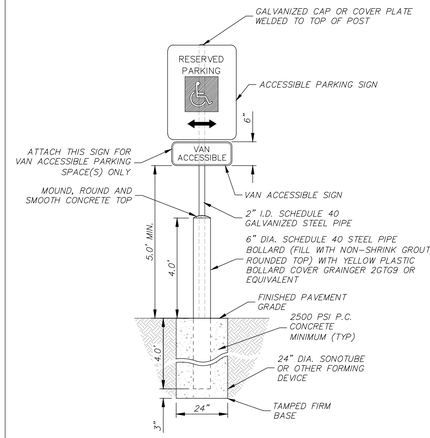
SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

NOTES:
SEE SPECS. 2573, 3137, & 3886.

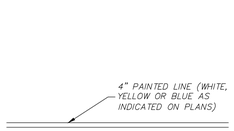
DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

1. ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
3. INSTALLATION NOTES:
   DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
5. SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
6. GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

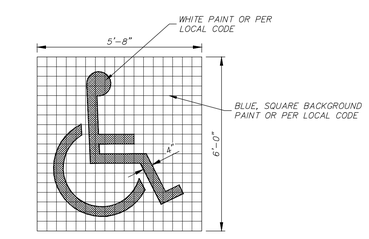


SIGN AND POST
INSTALLATION – TYPE 3

FOR ALL ACCESSIBLE PARKING
STALLS IN PAVEMENT AREAS
(NOT TO SCALE)

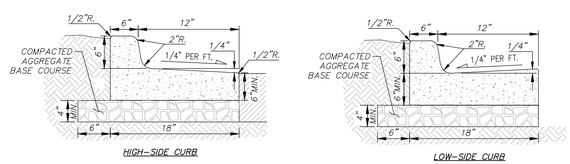


SINGLE STRIPE LINE DETAIL
(NOT TO SCALE)



4"x4" GRID FOR LAYOUT PURPOSES ONLY
FOR ALL ACCESSIBLE AND VAN ACCESSIBLE SPACES

ACCESSIBLE PAINTED SYMBOL DETAIL
(NOT TO SCALE)



18" CONCRETE CURB & GUTTER DETAIL
(NOT TO SCALE)

REVISION:

APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

DEPARTMENT OF TRANSPORTATION

STATE DESIGN ENGINEER

STANDARD PLAN 5-297.405	4 OF 8
APPROVED: 2-28-2017	
REVISED:	
STATE PROJ. NO.	(T.H.) SHEET NO. OF SHEETS

TEMPORARY SEDIMENT CONTROL

STORM DRAIN INLET PROTECTION

GSOC GOPHER STATE ONE CALL

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DESCRIPTION | DATE

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PLAN DETAILS

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DATE: 10/30/2023
SCALE: 1'-0" = 1'-0"
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: EMG
CHECKED BY: CBW

SHEET NUMBER
C500

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DIVISION 1 – GENERAL REQUIREMENTS

01 41 00 – REGULATORY REQUIREMENTS

1. THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED:
   a. MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) EROSION CONTROL AND LANDSCAPING PRODUCTS STANDARD SPECIFICATION BOOK
   b. MINNESOTA POLLUTION CONTROL AGENCY
   c. MINNESOTA STORM WATER MANUAL
   d. MINNESOTA ADMINISTRATIVE RULES, CHAPTER 7090, STORM WATER REGULATORY PROGRAM
   e. MINNESOTA PLUMBING CODE
   f. MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS
   g. FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
   h. THE ENGINEERING GUIDELINES FOR PROFESSION ENGINEERING SERVICES AND DEVELOPMENTS (GUIDELINES)
   i. THE CITY'S STANDARD CONSTRUCTION SPECIFICATIONS
   j. UNITED STATES DEPARTMENT OF JUSTICE ADA STANDARDS
   k. UNITED STATES DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES
   l. MUNICIPALITY DEVELOPMENT STANDARDS
   m. COUNTY DEVELOPMENT STANDARDS
2. THE OWNER, ENGINEER AND MUNICIPALITY SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS AND FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.
5. SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION IS DIFFERENT FROM THAT SPECIFIED OR IF REQUIRED BY THE MUNICIPAL ENGINEER.
   a. ALL DOCUMENTS SUBMITTED FOR REVIEW SHALL HAVE THE SPECIFIC MATERIAL, PART, SIZE, ETC. HIGHLIGHTED IN SOME FASHION. EXAMPLE: A FITTING CUT SHEET HAS MULTIPLE PRESSURE RATING FOR DIFFERENT SIZE BENDS. HIGHLIGHT THE PRESSURE CLASS & SIZE TO BE USED ON PROJECT. ALL SUBMITTALS NOT PROPERLY IDENTIFYING THE SPECIFIC MATERIAL BEING USED WILL BE REJECTED.
   b. CONTRACTOR SHALL SUBMIT A PDF COPY AND AN EXPLANATION AS TO HOW THE SUBSTITUTION MEETS THE PROPOSED DESIGN (PRODUCT SPECIFICATION SHEETS WITHOUT EXPLANATION WILL NOT BE ACCEPTED) TO THE OWNER'S REPRESENTATIVE OR ENGINEER FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL THE OWNER'S APPROVAL IS GIVEN. IN PROJECT SCHEDULING CONTRACTOR SHALL ACCOUNT FOR 5 WORKING DAYS FOR SUBMITTAL REVIEW. IN THE EVENT SUCH SUBSTITUTION IS APPROVED, THE OWNER WILL REQUIRE FROM THE CONTRACTOR A CREDITED DEDUCTION FROM THE CONTRACT AMOUNT EQUAL TO ANY SAVINGS IN MATERIAL COST RESULTING FROM USE OF THE PROPOSED SUBSTITUTE.
6. THE CONTRACTOR SHALL ASSUME COMPLETE AND SOLE RESPONSIBILITY FOR THE QUALITY OF WORK. IF CHANGES OR ADJUSTMENTS ARE RECOMMENDED BY THE CONTRACTOR, THEY MAY BE MADE ONLY UPON WRITTEN APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE.
   a. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE OWNER OR THEIR REPRESENTATIVE SHALL DECIDE ALL QUESTIONS WHICH SHALL ARISE AS TO THE QUALITY AND ACCEPTABILITY OF MATERIALS FURNISHED, WORK PERFORMED, AND WORKMANSHIP, , INTERPRETATION OF THE PLANS AND SPECIFICATIONS HE SHALL DETERMINE THE AMOUNT OF WORK PERFORMED AND MATERIALS FURNISHED.
   b. FAILURE OR NEGLIGENCE ON THE PART OF THE OWNER OR THEIR REPRESENTATIVE TO CONDEMN OR REJECT SUBSTANDARD OR INFERIOR WORK OR MATERIALS SHALL NOT BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR MATERIALS, IF IT BECOMES EVIDENT AT ANY TIME PRIOR TO THE FINAL ACCEPTANCE OF THE WORK BY THE OWNER. NEITHER SHALL IT BE CONSTRUED AS PREVENTING, AT ANY SUBSEQUENT TIME, FROM THE RECOVERY OF DAMAGES OR OF SUCH A SUM OF MONEY AS MAY BE NEEDED TO BUILD ANEW ALL PORTIONS OF THE SUBSTANDARD OR INFERIOR WORK OR REPLACEMENT OF IMPROPER MATERIALS WHEREVER FOUND.
   c. INSPECTORS EMPLOYED BY THE OWNER SHALL BE AUTHORIZED TO INSPECT ALL WORK DONE AND ALL MATERIAL FURNISHED. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE WORK AND TO THE PREPARATION, FABRICATION OR MANUFACTURE OF THE MATERIALS TO BE USED. THE INSPECTOR IS NOT AUTHORIZED TO REVOKE, ALTER OR WAIVE ANY REQUIREMENTS OF THE SPECIFICATIONS, NOR IS HE AUTHORIZED TO APPROVE OR ACCEPT ANY PORTION OF THE COMPLETED PROJECT. HE SHALL CALL THE ATTENTION OF THE CONTRACTOR TO ANY FAILURE OF THE WORK OR MATERIALS TO CONFORM TO THE SPECIFICATIONS AND CONTRACT, AND SHALL HAVE THE AUTHORITY TO REJECT MATERIALS. ANY DISPUTE BETWEEN THE INSPECTOR AND CONTRACTOR SHALL BE REFERRED TO THE OWNER OR THEIR REPRESENTATIVE. ANY ADVICE WHICH THE INSPECTOR MAY GIVE THE CONTRACTOR SHALL IN NO WAY BE CONSTRUED AS BINDING THE ENGINEER IN ANY WAY OR RELEASING THE CONTRACTOR FROM FULFILLING ANY OF THE TERMS OF THE CONTRACT.
   d. ALL MATERIALS AND EACH PART OF DETAIL OF THE WORK SHALL BE SUBJECT AT ALL TIMES TO INSPECTION BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE OR THE AUTHORITY HAVING JURISDICTION AND THE CONTRACTOR WILL BE HELD STRICTLY TO THE TRUE INTENT OF THE SPECIFICATIONS IN REGARD TO QUALITY OF MATERIALS, WORKMANSHIP, AND THE DILIGENT EXECUTION OF THE CONTRACT. SUCH INSPECTION MAY INCLUDE MILL, PLANT OR SHOP INSPECTION, AND ANY MATERIAL FURNISHED UNDER THESE SPECIFICATIONS IS SUBJECT TO SUCH INSPECTION. THE OWNER OR HIS REPRESENTATIVES SHALL BE ALLOWED ACCESS TO ALL PART OF THE WORK, AND SHALL BE FURNISHED WITH SUCH INFORMATION AND ASSISTANCE BY THE CONTRACTOR AS IS DETERMINED BY THE OWNER OR HIS REPRESENTATIVE, TO MAKE A COMPLETE AND DETAILED INSPECTION.
   e. ALL WORKMANSHIP SHALL CONFORM TO THE BEST STANDARD PRACTICE. UNLESS OTHERWISE SPECIFIED, THE SPECIFICATIONS OR RECOGNIZED ASSOCIATION OF MANUFACTURERS AND CONTRACTORS OR INDUSTRIAL MANUFACTURERS SHALL BE USED AS GUIDES FOR THE STANDARDS OF WORKMANSHIP.
   f. ALL EXPOSED ITEMS OF WORK SHALL PRESENT A NEAT WORKMANLIKE APPEARANCE AND SHALL BE AS TRUE TO SHAPE AND ALIGNMENT AS POSSIBLE TO OBTAIN WITH MEASURING OR LEVELING INSTRUMENTS GENERALLY USED IN THE RESPECTIVE TYPES OF WORK. ITEMS OF WORK SHALL BE SOUND AND FULLY PROTECTED AGAINST DAMAGE AND PREMATURE DETERIORATION. IT IS SPECIFICALLY UNDERSTOOD THAT IN ALL QUESTIONS OF QUALITY AND ACCEPTABILITY OF WORKMANSHIP, THE CONTRACTOR AGREES TO ABIDE BY THE DECISION OF THE OWNER OR THEIR REPRESENTATIVE.
   g. ALL MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS DEFECTIVE, AND ALL SUCH MATERIALS, WHETHER IN-PLACE OR NOT, SHALL BE REJECTED AND SHALL BE REMOVED FROM THE WORK BY THE CONTRACTOR AT HIS EXPENSE. UPON FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH ANY ORDER OF THE OWNER RELATIVE TO THE PROVISIONS OF THIS ARTICLE, THE OWNER SHALL HAVE THE AUTHORITY TO REMOVE AND REPLACE SUCH DEFECTIVE MATERIAL AND TO DEDUCT THE COST OF REMOVAL AND REPLACEMENT FROM ANY MONIES DUE OR WHICH MAY BECOME DUE THE CONTRACTOR.
   h. THE CONTRACTOR SHALL KEEP A LEGIBLE COPY OF THE PLANS, SPECIFICATIONS, AND ALL PERMITS AT THE SITE OF THE WORK AT ALL TIMES.
   i. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE THE OWNER OR THEIR REPRESENTATIVE WITH A MARKED-UP SET OF DRAWINGS SHOWING ALL CHANGES OR VARIATIONS FROM THE ORIGINAL DRAWINGS. THESE CHANGES SHALL BE MADE ON A SET OF FIELD DRAWINGS AS THE WORK TAKES PLACE, AND NOT FROM MEMORY WHEN THE WORK IS DONE. THIS SET OF DRAWINGS SHOULD BE KEPT CLEAN IN A LOCATION AT THE SITE WHERE THE OWNER OR THEIR REPRESENTATIVE MAY EXAMINE THEM.
   j. THE MARKED-UP DRAWINGS SHALL BE ACCURATE. ARBITRARY MARKINGS ARE OF NO VALUE. CAREFUL MEASUREMENTS SHALL BE MADE TO LOCATE UNDERGROUND EXTERIOR AND UNDERGROUND INTERIOR SEWERS, GAS LINES, WATER LINES, ELECTRICAL CONDUIT AND MISCELLANEOUS PIPING.
7. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. TRAFFIC CONTROL PLANS AND PERMITTING FOR ALL WORK TO BE COMPLETED ONSITE OR IN THE PUBLIC RIGHT-OF WAY.

01 70 00 – EXECUTION & CLOSEOUT REQUIREMENTS

1. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL EXISTING SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE WITH THIS PLAN.
2. EXISTING UTILITY INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY, BASED ON BEST AVAILABLE PUBLIC RECORDS, AS-BUILT DRAWINGS, AND FIELD OBSERVATIONS. NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR ACCURACY OR COMPLETENESS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND NATURE OF EXISTING UTILITIES, AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
3. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS, ELEVATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL PROPOSED UTILITY CONNECTIONS AND CROSSINGS PRIOR TO PROCEEDING WITH ANY WORK. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED. COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION
5. THE CONTRACTOR SHALL FIELD VERIFY ELEVATIONS OF THE BENCHMARKS AND HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES, AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH ANY WORK.
6. SURVEY BENCHMARKS AND CONTROL POINTS SHALL BE MAINTAINED AND PROTECTED FROM DISTURBANCE.
7. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED AT ALL TIMES. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR. THE COST OF RESTORATION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED.
9. PUBLIC ROADS SHALL NOT BE FULLY CLOSED TO TRAFFIC AT ANY TIME. ALL INGRESS AND EGRESS TRAFFIC TO THE PROJECT SITE SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES, SHALL BID ON THEIR OWN ESTIMATE OF THE WORK REQUIRED, AND SHALL NOT RELY ON THE ENGINEER'S ESTIMATE.
11. REQUESTS FOR CLARIFICATION WILL BE INTERPRETED BY THE OWNER/ENGINEER PRIOR TO AWARD OF CONTRACT, AND WHEN NECESSARY, OFFICIAL WRITTEN RESPONSES WILL BE ISSUED. OFFICIAL WRITTEN RESPONSES SHALL BE BINDING TO THE WORK. IN NO WAY SHALL VERBAL DIALOGUE CONSTITUTE OFFICIAL RESPONSE.
12. SHOULD ANY DISCREPANCIES BE DISCOVERED BY THE CONTRACTOR AFTER AWARD OF CONTRACT, NOTIFY OWNER/ENGINEER IN WRITING IMMEDIATELY. CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES SHALL NOT COMMENCE OR CONTINUE UNTIL AN OFFICIAL WRITTEN RESPONSE IS ISSUED
13. ALL WORK SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL INCLUDE ALL DEFECTS IN MATERIALS AND WORKMANSHIP.
14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

DIVISION 31 – EARTHWORK

31 10 00 – SITE CLEARING & DEMOLITION

1. WORK SHALL CONSIST OF DEMOLITION, ABANDONMENT, AND REMOVAL OF EXISTING FOUNDATIONS, WALLS, SLABS, FENCES, PIPING, PAVEMENTS, AND OTHER MANMADE ITEMS INTERFERING WITH NEW CONSTRUCTION. WORK SHALL ALSO CONSIST OF CLEARING AND GRUBBING OF TREES, SHRUBS, VEGETATION, ROOTS, STUMPS, RUBBISH, AND OTHER PERISHABLE MATTER INTERFERING WITH NEW CONSTRUCTION.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CALL 811 TO NOTIFY UTILITY PROVIDERS AND REQUEST FIELD LOCATION OF EXISTING UTILITIES WITHIN PROJECT LIMITS PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES.
4. INSTALL PERIMETER FENCING AS INDICATED PRIOR TO COMMENCING ANY CONSTRUCTION RELATED ACTIVITY.
5. CLEARLY IDENTIFY ALL VEGETATION TO BE PRESERVED AND/OR RELOCATED PRIOR TO CLEARING AND GRUBBING.
6. PROTECT EXISTING IMPROVEMENTS TO REMAIN DURING CONSTRUCTION. ANY DAMAGED IMPROVEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION, OR AS OTHERWISE ACCEPTABLE TO THE OWNER.
7. REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.
8. SAWCUT ALL PAVEMENT TO BE REMOVED IN STRAIGHT LINES TO FULL DEPTH.
9. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS. BREAK UP CONCRETE SLABS THAT ARE 2 FEET OR MORE BELOW PROPOSED SUBGRADE TO PERMIT DRAINAGE.
10. DISCONNECT AND SEAL/CAP EXISTING UTILITIES TO BE REMOVED, RELOCATED, OR ABANDONED IN ACCORDANCE WITH REQUIREMENTS OF UTILITY PROVIDERS.
11. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING OWNERSHIP OF AND COORDINATING NECESSARY REMOVAL AND/OR RELOCATION OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS.
12. DO NOT INTERRUPT UTILITY SERVICE TO EXISTING FACILITIES UNLESS PERMITTED BY THE OWNER.
13. VOIDS LEFT BY REMOVALS SHALL BE LEVELED TO PREVENT PONDING OF WATER.
14. REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS, TRASH, AND DEBRIS FROM THE PROJECT SITE. RUBBISH, TRASH, GARBAGE, AND LITTER SHALL BE PLACED IN SEALED CONTAINERS THROUGHOUT CONSTRUCTION.
15. CLEARING AND GRUBBING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISION OF MNDOT 2101.

31 20 00 – EARTH MOVING

1. WORK SHALL CONSIST OF STRIPPING AND STORAGE OF TOPSOIL, EXCAVATION, EMBANKMENT, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE LAND BALANCE, COMPACTION, FINISH GRADING, SUBGRADE PREPARATION, AND REPLACEMENT OF TOPSOIL.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION BASED ON FIELD CONDITIONS, AND THESE REQUIREMENTS. THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
4. EXCAVATE TO SUBGRADE REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. EXCAVATED MATERIAL MAY INCLUDE ROCK AND UNCLASSIFIED OBSTRUCTIONS, WHICH IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE WORK.
5. EXISTING FOUNDATIONS, BUILDING REMNANTS, AND UNSATISFACTORY MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND BUILDING PAD AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATERIAL.
6. EXISTING FOUNDATIONS, BUILDING REMNANTS, AND UNSATISFACTORY MATERIAL SHALL BE REMOVED TO A MINIMUM OF 2 FEET BELOW PROPOSED SUBGRADE WITHIN GREENSPACE AND PAVEMENT AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATERIAL.
7. AREAS SHALL BE GRADED TO WITHIN 1 INCH, MORE OR LESS, OF PROPOSED SUBGRADE. DEVIATIONS SHALL NOT BE CONSISTENT IN ONE DIRECTION.
8. DISKING, HARROWING, AND AERATION TECHNIQUES SHALL BE USED TO DRY SUBGRADE PRIOR TO PROOF ROLLING.
9. IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER, PROOF ROLL SUBGRADE BELOW BUILDING PAD AND PAVEMENT AREAS DURING DRY WEATHER WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK WHERE COHESIVE SOILS ARE PREDOMINANT, AND WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PREDOMINANT. SUBGRADE WHICH IS OBSERVED TO RUT OR DEFLECT EXCESSIVELY SHALL BE UNDERCUT IN ACCORDANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. DO NOT PROOF ROLL WET OR SATURATED SUBGRADE.
10. THE CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ADEQUATELY WATER PONDING SURFACE WATER AND GROUNDWATER SHALL BE PREVENTED FROM ENTERING EXCAVATIONS, PONDING ON PREPARED SUBGRADES, AND FLOODING PROJECT SITE AND/OR SURROUNDING AREAS.
11. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ALL EARTHWORK COMPUTATIONS AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT.
12. TOPSOIL REPLACEMENT DEPTH SHALL BE AS CALLED OUT ON THE CIVIL OR LANDSCAPE PLANS, OR A MINIMUM OF FOUR INCHES IF NOT CALLED OUT ON LANDSCAPE PLAN.
13. TOPSOIL IN PARKING ISLANDS: ALL PARKING LOT ISLANDS TO BE BACKFILLED WITH TOPSOIL TO A MINIMUM DEPTH OF 18" BY GRADING CONTRACTOR TO INSURE LONG TERM PLANT HEALTH. CROWN ALL PLANTING ISLANDS A MINIMUM OF 6" TO PROVIDE PROPER DRAINAGE, UNLESS OTHERWISE SPECIFIED.

31 25 00 – EROSION & SEDIMENTATION CONTROLS

1. WORK SHALL CONSIST OF INSTALLATION OF TEMPORARY AND PERMANENT PRACTICES FOR SEDIMENTATION CONTROL, EROSION CONTROL, SLOPE PROTECTION, AND REMOVAL OF PRACTICES UPON FINAL SITE STABILIZATION.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. INSTALLATION AND MAINTENANCE OF PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE MNDOT STANDARDS, OR CITY OF COTTAGE GROVE STANDARDS SPECIFICATIONS IF A TECHNICAL STANDARD IS NOT AVAILABLE.
4. ALL PRACTICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY LAND DISTURBING CONSTRUCTION RELATED ACTIVITY. EARTHWORK ASSOCIATED WITH INSTALLATION OF PRACTICES MAY OCCUR CONCURRENTLY.
5. ALL PRACTICES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH PERMIT REQUIREMENTS.
6. ALL PRACTICES SHALL BE ROUTINELY INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL GREATER THAN 0.5 INCHES. THE CONTRACTOR IS REQUIRED TO PERFORM INSPECTIONS, KEEP A LOG, AND CONDUCT REPAIRS AS NEEDED.
7. ALL DISTURBED AREAS SHALL DRAIN TO A CONTROL PRACTICE AT ALL TIMES DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING UPON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL ADDITIONAL CONTROL PRACTICES IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT SITE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL PRACTICES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.
8. ALL DISTURBED GROUND LEFT INACTIVE FOR 7 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE AND MULCH. THE TEMPORARY SEED MIXTURE SHALL BE IN ACCORDANCE WITH SECTION 630 OF WISDOT STANDARD SPECIFICATIONS. WINTER WHEAT OR RYE SHALL BE USED FOR TEMPORARY SEED AFTER SEPTEMBER 1.
9. DISTURBED AREAS THAT CAN NOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM).
10. ALL ACTIVITIES ON THE PROJECT SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME.
11. DUST GENERATED BY CONSTRUCTION RELATED ACTIVITIES SHALL BE MINIMIZED BY USE OF WATERING, CALCIUM CHLORIDE SURFACE TREATMENT, CONSTRUCTION SCHEDULING, OR OTHER APPROPRIATE MEASURES.
12. THE CONTRACTOR SHALL BE PREPARED FOR DEWATERING CONDITIONS BY HAVING APPROPRIATE PUMPS AND FILTER BAGS ONSITE. ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED PRIOR TO DISCHARGE FROM THE PROJECT SITE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF THE PROJECT SITE AND PUBLIC ROADS DURING CONSTRUCTION. PUBLIC ROADS SHALL BE KEPT FREE OF SEDIMENT TRACKED FROM AREAS UNDER CONSTRUCTION BY DAILY SWEEPING OR OTHER APPROPRIATE MEASURES.
14. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
15. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN TO MAINTAIN A VIGOROUS DENSE VEGETATIVE COVER.

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 12 00 – ASPHALT PAVING

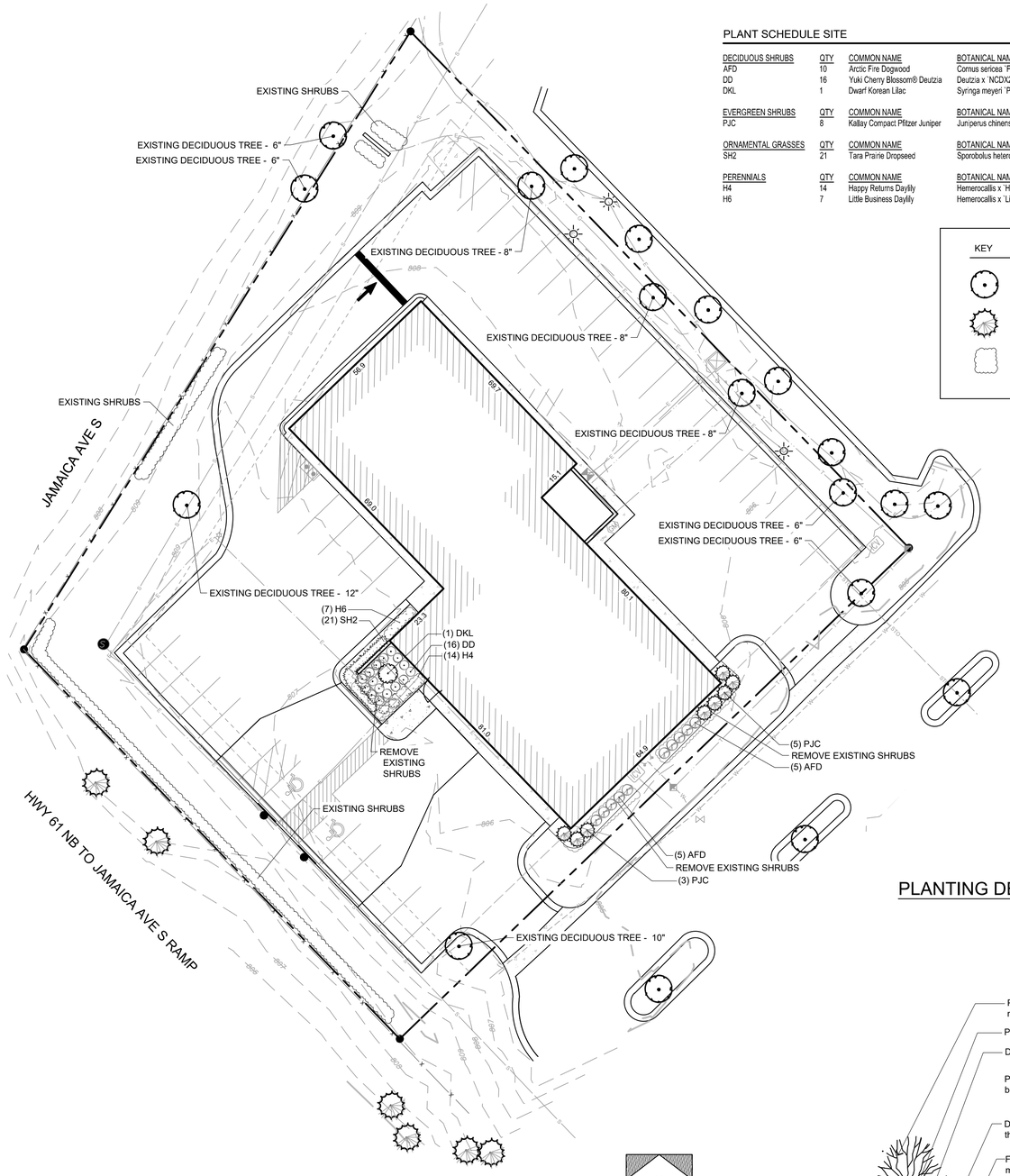
1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF HOT-MIX ASPHALT, PAVEMENT MARKING, SIGNAGE, AND CLEANUP.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
4. ASPHALTIC MATERIALS SHALL BE IN ACCORDANCE WITH MNDOT 2360
5. AGGREGATE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
6. DO NOT CONDUCT ASPHALT PAVING IF ANY OF THE FOLLOWING CONDITIONS EXIST: CRUSHED STONE BASE IS WET OR EXCESSIVELY DAMP; TEMPERATURE IS BELOW 30 DEGREES FAHRENHEIT AT TIME OF BINDER COURSE INSTALLATION; TEMPERATURE HAS BEEN BELOW 35 DEGREES FAHRENHEIT WITHIN 12 HOURS PRIOR TO TACK COAT APPLICATION; TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AT TIME OF SURFACE COURSE INSTALLATION.
7. COMPACT ASPHALT IN ACCORDANCE WITH MNDOT 2360
8. APPLY TACK COAT BETWEEN ASPHALT COURSES AT A MINIMUM RATE OF 0.25 GAL/SY.
9. NO TRAFFIC SHALL BE ALLOWED ON ASPHALT AFTER FINAL ROLLING UNTIL IT HAS COOLED AND HARDENED.
10. FINAL ASPHALT SURFACE SHALL BE WITHIN A 1/8-INCH TOLERANCE AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED LONGITUDINALLY OR TRANSVERSELY. REMOVE AND REPLACE ALL RAISED AND DEPRESSED AREAS EXCEEDING TOLERANCE.
11. A SLOPE NO GREATER THAN 2% IN ALL DIRECTIONS AT ADA PARKING STALLS AND ADJACENT UNLOADING AREAS IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
12. A SLOPE NO GREATER THAN 5% ALONG THE LENGTH OF THE ACCESSIBLE ROUTE IS REQUIRED. A SLOPE NO GREATER THAN 2% ACROSS THE WIDTH OF THE ACCESSIBLE ROUTE IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

32 13 00 – CONCRETE PAVING

1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF CONCRETE, AND CLEANUP.
2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
3. CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH MNDOT 2211.
4. CONCRETE PAVING SHALL BE IN ACCORDANCE WITH MNDOT 2301.
5. CONCRETE SHALL BE GRADE A AIR-ENTRAINED IN ACCORDANCE WITH MNDOT 2301 WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
6. AGGREGATE SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
7. WATER SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
8. AIR-ENTRAINING SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301.
9. LIQUID CURING COMPOUND SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS AND MNDOT 2301
10. CURBING SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS.
11. SIDEWALK AND PATIO SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS.
12. CONCRETE FORMS SHALL REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE INSTALLATION AND SHALL BE CLEANED AFTER EACH USE. CONCRETE FORMS SHALL BE COATED WITH RELEASE AGENT TO ALLOW SEPARATION WITHOUT DAMAGE TO CONCRETE.
13. CONSTRUCTION AND CONTRACTION JOINTS SHALL BE IN ACCORDANCE WITH CITY OF COTTAGE GROVE STANDARD SPECIFICATIONS. JOINT PATTERN SHALL FOLLOW ARCHITECTURAL PLANS IF AVAILABLE.
14. ISOLATION JOINTS SHALL CONSIST OF PREFORMED JOINT FILLER STRIPS ABUTTING CURBING, INLETS, CATCH BASINS, MANHOLES, STRUCTURES, AND OTHER FIXED OBJECTS.

DIVISION 32 – EXTERIOR IMPROVEMENTS

15. EDGES OF CONCRETE PAVEMENT, CURBING, SIDEWALK, PATIOS, AND JOINTS SHALL BE TOOLED IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING AFTER APPLYING SURFACE FINISHES AND ELIMINATE TOOL MARKS ON SURFACES.
16. FINISH, CURE, AND PROTECT CURBING
17. FINISH (LIGHT BROOM), CURE, AND PROTECT SIDEWALK AND PATIOS IN ACCORDANCE WITH MNDOT STANDARD SPECIFICATIONS.
18. FINISH (ARTIFICIAL TURF DRAG), CURE, AND PROTECT VEHICULAR PAVEMENT AND PADS
19. MAINTAIN CONCRETE FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PRIOR TO SUBSTANTIAL COMPLETION INSPECTION.
20. MAXIMUM DIFFERENCE BETWEEN



PLANT SCHEDULE SITE

DECIDUOUS SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
AFD	10	Arctic Fire Dogwood	Cornus sericea `Farrow`	15" HT	CONT.	
DD	16	Yuki Cherry Blossom® Deutzia	Deutzia x `NCDX2`	15" HT	CONT.	
DKL	1	Dwarf Korean Lilac	Syringa meyeri `Palibin`	18" HT	CONT.	
EVERGREEN SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
PJC	8	Kallay Compact Pfitzer Juniper	Juniperus chinensis `Kallays Compact`	18"SPD	CONT.	
ORNAMENTAL GRASSES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
SH2	21	Tara Prairie Dropseed	Sporobolus heterolepis `Tara`	1 GAL	POT	18" Spacing
PERENNIALS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
H4	14	Happy Returns Daylily	Hemerocallis x `Happy Returns`	4 1/2"	POT	18" Spacing
H6	7	Little Business Daylily	Hemerocallis x `Little Business`	4 1/2"	POT	24" Spacing

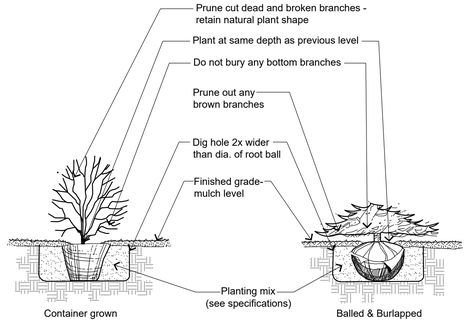
KEY

- EXISTING DECIDUOUS TREE TO REMAIN
- EXISTING EVERGREEN TREE TO REMAIN
- EXISTING SHRUBS TO REMAIN

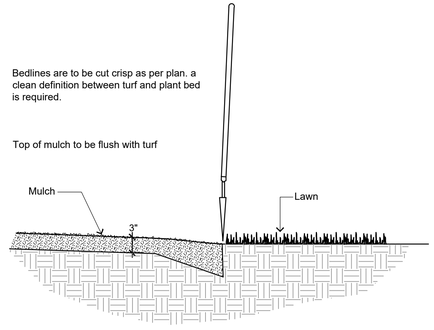
NORTH

0 10 20 40
GRAPHIC SCALE

PLANTING DETAILS



1 SHRUB PLANTING DETAIL
NOT TO SCALE



2 SHOVEL CUT PLANT BED EDGING DETAIL
NOT TO SCALE

DIVISION 1 - GENERAL REQUIREMENTS

01 5 00 Substitution Procedures

1. Any potential plant substitutions must be submitted in writing to the general contractor and approved by the owner's representative or prior to installation. All plants must be installed as per sizes and quantities shown on plant material schedule, unless approved by owner's representative . Any potential changes to sizes shown on plan and appropriate cost credits / adjustments must be submitted in writing to the general contractor and approved by the owner's representative prior to installation.

01 11 13 Work Covered by Contract Documents

1. Warranty and replacements: All plants (evergreens, shrubs, perennials and ornamental grasses) shall be warranted by the landscape contractor to be in healthy and flourishing condition for a period of one calendar year after the date of acceptance. This assumes the owner performs required maintenance (i.e. regular watering) after the landscape contractor's maintenance period has been completed. Landscape contractor shall inform owner when required maintenance has concluded. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements. Replacements shall be plants of the same variety specified on the plan and closely match adjacent specimens in size.

2. The landscape contractor is responsible for the watering and maintenance of all landscape areas at time of planting, throughout construction and until the substantial completion of the installation and acceptance by the owner. This includes all trees, shrubs, evergreens, perennials, ornamental grasses, turf grass and native seeding areas. Work also includes weeding, edging, mulching (only if required), fertilizing, trimming, mowing lawn areas, sweeping up grass clippings, pruning and deadheading.

3. Upon substantial completion of the project, landscape contractor is responsible to conduct a final review of the project with the owner's representative and the general contractor to answer questions and insure that all specifications have been met. The landscape contractor shall provide watering and general ongoing maintenance instructions (in writing) for the new plantings and lawn areas.

012 16 Work Sequence

1. Contractor responsible for contacting public and private underground utility locating service to have site marked prior to any digging or earthwork.

2. Contractor to verify all plant quantities shown on plant list and verify with plan. Report any discrepancies immediately to general contractor. Inform landscape architect and general contractor of date(s) when planting shall commence.

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 91 00 - PLANTING PREPARATION

32 91 13 Soil Preparation

1. Areas to be seeded: remove / kill off any existing unwanted vegetation prior to seeding with a glyphosate herbicide, applied only by a state certified applicator no sooner than 2 weeks prior to seed installation. Prepare seed bed areas to a maximum depth of 1 inch. Prepare the topsoil by removing all surface stones 1" or larger. Soil's surface should be loose and free of any soil clumps exceeding 1 inch in diameter. Do not fertilize native seeding areas.

2. Plant bed preparation: the soil in all perennial and ornamental grass areas shall be amended with compost prior to plant installation. Spread a 2" layer of compost (per note below) on top of clean topsoil and rototill to a depth of approximately 8".

3. Compost shall be stable, and weed-free organic matter. It shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth. The compost shall contain no pathogens or other chemical contaminants and meet the requirements of WisDNR S100 Compost Specification.

32 91 13.16 Mulching

1. All shrub planting beds to receive a 3" deep layer of high quality shredded hardwood bark mulch (not enviromulch or wood chips). Mulch shall be uniform in size, color, quality and overall appearance. Mulch shall be free of debris, large wood chunks, soil, rocks, weeds, invasive plant parts or seeds and any other material injurious to plant growth. All perennial and ornamental grass planting areas to receive a 2" layer and groundcover areas a 1-2" layer of the same mulch. Do not allow mulch to contact plant stems and tree trunks.

32 93 00 - PLANTS

1. All plantings shall comply with standards as described in American Standard of Nursery Stock - ANSI Z60.1 (latest version). General contractor or owner's representative reserves the right to inspect and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged.

32 93 33 Shrubs

1. Shrubs shall be planted per planting details.
2. All shrubs to be pocket planted with a mix of 75% existing soil removed from excavation and 25% compost, blended prior to backfilling holes.
3. When hole is two-thirds full, shrubs shall be watered thoroughly and water left to soak in before proceeding.

32 94 00 - PLANTING ACCESSORIES

32 94 13 Landscape Edging

1. Edge all planting beds with a 4" deep spaded edge (shovel cut or mechanical). Bedlines are to be cut crisp, as per plan. A clean definition between lawn and plant bed is required.

GSOC GOPHER STATE ONE CALL

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ras-2023-3230195-02

DESCRIPTION | DATE

raSmith
CREATIVITY BEYOND ENGINEERING
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Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
Brookfield, WI | Milwaukee, WI | Appleton, WI | Madison, WI
Cedarburg, WI | Naperville, IL | Irvine, CA

DISCOUNT TIRE COTTAGE GROVE
COTTAGE GROVE, MN

LANDSCAPE PLAN

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R.A. Smith, Inc.

DATE: 10/30/2023
SCALE: 1" = 20'
JOB NO. 3230195
PROJECT MANAGER: ROBERT J. HARLEY
DESIGNED BY: NJW
CHECKED BY: REW

SHEET NUMBER
L100

C:\Users\rharley\Desktop\3230195\Dwg\Sheets\3230195_LSP01.dwg, LANDSCAPE PLAN, 10/30/2023 2:57:36 PM, emg2

STAFF REPORT CASE: PP2024-004

ITEM: 6.4

PUBLIC MEETING DATE: 1/22/24 TENTATIVE COUNCIL REVIEW DATE: 2/21/24

APPLICATION

APPLICANT: Rachel Development, Inc.

REQUEST: A preliminary plat to be called Mississippi Landing for a residential subdivision that will consist of 377 single-family homes and 18 outlots.

SITE DATA

LOCATION: Former Mississippi Dunes Golf Course and properties to its west, generally located east or Grey Cloud Drive and north of the Mississippi River

ZONING: R-3, Single Family Residential, and R-5, Medium Density Residential

GUIDED LAND USE: Low Density Residential, Medium Density Residential, Parks/Open Space

LAND USE OF ADJACENT PROPERTIES:	CURRENT	GUIDED
NORTH:	Rural Residential	Medium Density Res.
EAST:	Rural Residential	Trans. Planning Area
SOUTH:	Mississippi River	Mississippi River
WEST:	Agricultural	Parks/Open Space

SIZE: Approximately 172.3 Acres

DENSITY: 2.47 units per acre

RECOMMENDATION

Approval, subject to the conditions stipulated in this staff report.

COTTAGE GROVE PLANNING DIVISION

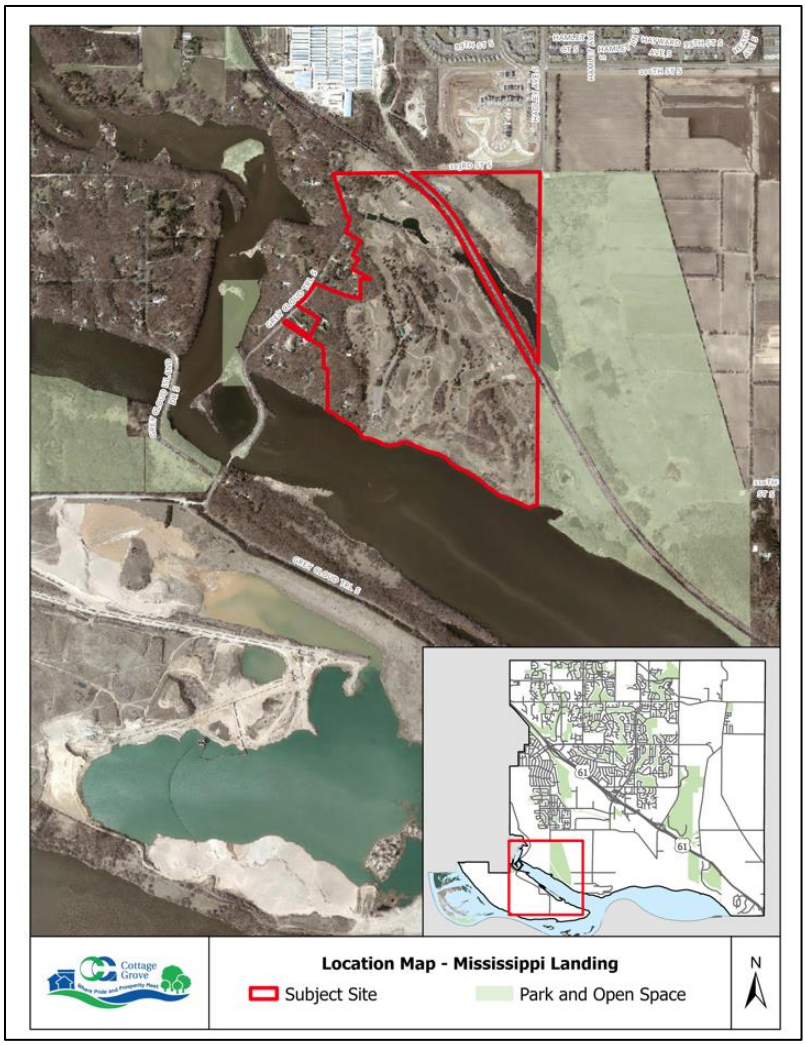
Planning Staff Contact: Emily Schmitz, Community Development Director;
651-458-2874; eschmitz@cottagegrovemn.gov

Application Accepted: 12/27/2023 60-Day Review Deadline: 2/25/2024

Planning Staff Report
Mississippi Landing
Planning Case No. PP2024-004
January 22, 2024

Proposal

Rachel Development, Inc. has submitted an application for a preliminary plat and planned unit development (PUD) for a subdivision consisting of 377 single-family lots. The subject site is located on the former Mississippi Dunes Golf Course site south of 103rd Street South, east of Grey Cloud Trail South, and adjacent to the Mississippi River.



Review Schedule
Application Received: December 21, 2023
Application Accepted: December 27, 2023
Planning Commission Meeting: January 22, 2024
Tentative City Council Meeting: February 21, 2024
60-Day Review Deadline: February 25, 2024

Background

Site Background

The Mississippi Dunes Golf Course property (approximately 200 acres including the old driving range) as it is known today, is located south of 103rd Street and adjacent to the Mississippi River and was maintained as tilled field until the early 1990's when it was mass site graded into a golf course. The course operated from the 1990's until around 2017/2018 when the course closed permanently. The site sat vacant since that time and eventually went into foreclosure. The property was purchased sometime in 2019 by the current property owner.

In November of 2020, the City initiated a Master Plan process evaluating the property and creating a vision for park and open space as well as potential density on the site. The Mississippi Dunes Master Plan was approved by the Council on December 1, 2021. At time the Master Plan was approved by Council, the City submitted an application for a Comprehensive Plan Amendment to align the City's 2040 Comprehensive Plan with the newly approved Master Plan. The Comprehensive Plan amendment was approved by the Metropolitan Council on August 24, 2022.

In December of 2021, Pulte Homes submitted a development application for a Zoning Amendment, Site Plan Review, and Preliminary Plat for a subdivision consisting of 312 single-family lots, 8 twin home units, and a 52-unit senior living cooperative. The applications received a recommendation of approval from the Planning Commission at their February 28, 2022, meeting and final approvals at the March 16, 2022, City Council meeting; however, the applicant did not move forward with the approved project and discontinued their purchase agreement with the property owner. The preliminary plat and site plan review approvals from March 2022 expire in March of 2024.

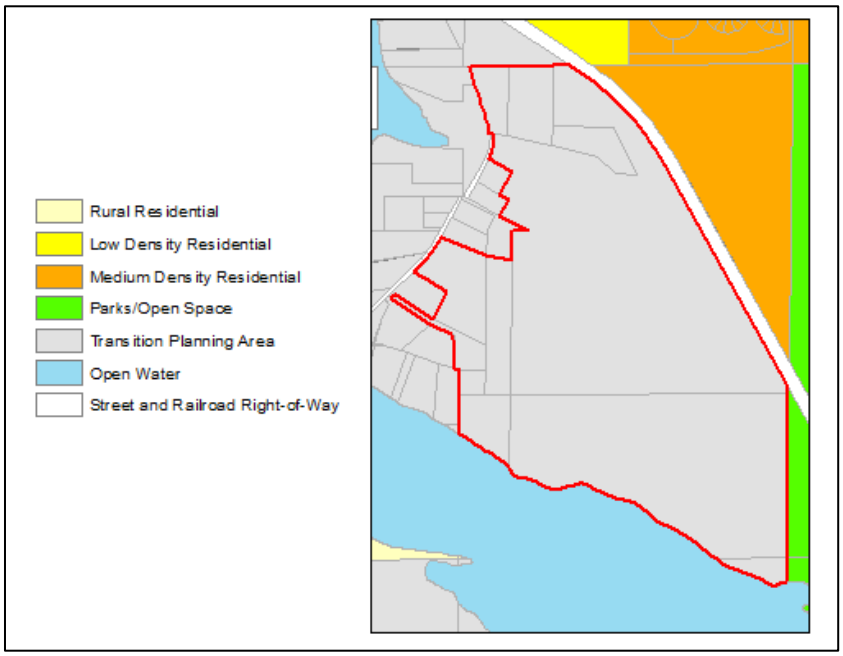
Land Use Background

The previous Mississippi Dunes Golf Course site was approved for golf course development in 1992, and at that time the parcel(s) were guided as agricultural/rural residential. In 2011, as part of the City's 2030 Comprehensive Plan update, the golf course site was guided as "Golf Course" while the surrounding properties, aside from the DNR's Scientific Natural Area (SNA), were guided as Transitional Planning Area. The intent of the 2030 Comprehensive Plan update, guiding the

Mississippi Dunes Golf Course as “Golf Course”, was to differentiate land use for golf courses that have potential for future development, from areas designated for parks and open space.

2030 Land Use Map

In 2018, as part of the 2040 Comprehensive Plan update, the Golf Course was guided as “Transitional Planning Area.” Areas guided within Transitional Planning Areas require additional planning efforts to review and establish future land use designations. Given the Golf Course had been closed in 2017, there was the understanding of potential proposals for development of the site and the City wanted to be sure additional efforts of a Master Plan process were completed to provide clear direction for potential redevelopment of the site.



2040 Land Use Map

Mississippi Dunes Master Plan

In 2020, the City completed the Mississippi River Access Strategy Report identifying the Mississippi Dunes Golf Course as the number one priority for public access to the river in Cottage Grove. The City of Cottage Gove initiated drafting of the Mississippi Dunes Master Plan in late 2020 with

the hiring of the City's consultant, ISG, to facilitate the master planning process. The Mississippi Dunes Master Planning process included two components: Park Master Plan and Land Use Master Plan. The Master Planning process focused on being proactive in managing future park, preservation areas, and recreation opportunities ahead of development options.

The Master Plan project statement included:

- Capitalize on a unique opportunity to provide additional access to the Mississippi River and water trail network,
- Reserve valuable river front area as part of the redevelopment of the site to single-family and medium-density housing,
- Provide programming and design to ensure enough open space is reserved for useful, high-quality recreation space and river access where housing and open space benefit each other; and
- Coordinate and collaborate with adjacent landowners including the DNR through the Scientific and Natural Area (SNA) Unit.

Upon completion of a draft of the Master Plan, the City held an open house as well as made the draft Master Plan available in an online forum for comments to be submitted. The City adjusted the Master Plan based on feedback from the open house, online forum, and the City Council. Specifically, reducing the area proposed for medium density housing. The final Master Plan was reviewed, and approval was recommended by the Planning Commission on November 8, 2021 (5-0 vote) and final approval of the Master Plan was granted by the City Council on December 1, 2021 (5-0 vote).

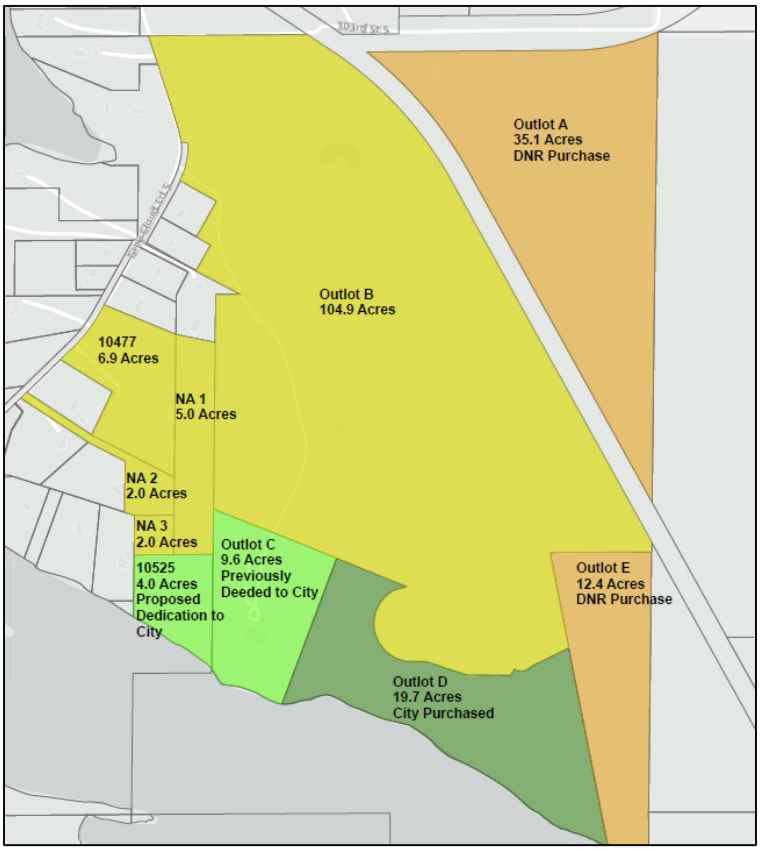
Mississippi Dunes Master Plan

Upon approval of the Master Plan, the City started efforts in coordination with the property owner, State, and County partner to acquire additional land above and beyond the required park dedication as required as part of a development for this site. The City worked with the property owner for purchase of 19.91 acres of land adjacent to the Mississippi River. The City requested and received a funding partnership from Washington County's Land and Water Legacy Program for park land acquisition at Mississippi Dunes. As part of the purchase of the 19.91 acres, the City committed to preservation of these acres as passive open space limiting the permitted infrastructure and maintaining the natural features of the area.

As part of the coordination with the County, the City completed a final plat process to create the lot for purchase (Outlot D) and the future lots committed by the property owner to be dedicated and conserved as park and open space.

The plat created the following parcels:

- A 19.91-acre parcel (Outlot D) the City purchased on June 30, 2023. The City also secured an easement from the property owner for immediate public access to the public open space.
- Outlot C which was dedicated to the City by the property owner ahead of a development.
- Outlots A and E - The DNR currently has an option to purchase these lots with the property owner.
- Outlot B planned for potential future development.



Proposed Outlot Map

EAW

State Statute requires that single-family residential developments within the Metropolitan Urban Service Area (MUSA) with 250 unattached units or greater prepare an Environmental Assessment Worksheet (EAW) prior to development. The purpose of the EAW is to determine if the preparation of an Environmental Impact Statement (EIS) is necessary. The Responsible Government Unit (RGU) for environmental review is typically the unit with the greatest authority over the project. The City of Cottage Grove was determined to be the Responsible Governmental Unit (RGU). SHC, LLC was hired by the applicant to draft the EAW. The topics reviewed in an EAW include existing ground cover, land use, zoning, geology, water resources, wastewater, air quality, noise, ecological resources, hazardous materials, transportation, and traffic.

The mandatory EAW was submitted by Pulte Homes for the previously proposed residential development. The project that was reviewed for potential environmental impact included a total of 499 units, the maximum project density. The draft EAW followed the required process and was published with the Environmental Quality Board (EQB) Monitor for a 30-day public review and comment period on November 23, 2021, and was distributed to relevant governmental agencies at that time and posted to the City's website for public review. The Planning Commission held a public hearing on the Draft EAW at their December 20, 2021, regular meeting and voted to recommend no additional environmental review.

The official 30-day comment period for the EAW expired on January 6, 2022. Comments received were collated by category and relevancy by the City of Cottage Grove. The City Council reviewed the comments on February 2, 2022, and from those comments received, determined the EAW, nor any of the comments, raised an issue that would require further review in the form of an Environmental Impact Statement (EIS). The response to comments and the final decision were submitted to the EQB for publication.

The current application submitted by Rachel Development, Inc. consists of 377 total units which is within the 499 unit threshold of the previously completed EAW by Pulte Homes. The action items addressed within the EAW will or have been addressed by the developer, previous developer, or the City and will be required to be completed and maintained throughout the project. Notable studies that resulted and have been completed from the EAW include the following:

- Rusty Patch Bumblebee Habitat Assessment: The assessment was completed by res Senior Ecologist, John Larson and indicated there was low suitable habitat for the Rusty Patch Bumblebee within the portions of the property that are being developed.
- Phase 1 Archaeological Survey: The Phase 1 Survey was completed by Westwood and found no archaeological resources on the property that is proposed for development. However, a contingency plan in the event any archaeological resources are discovered during the construction process had been completed.
- Rare Plant Survey: The Rare Plant Survey was completed Midwest Natural Resources, Inc., and resulted in one state-listed plant species being found located outside of the area proposed for development on the acres planned to be sold to the DNR as an expansion of the SNA. No direct impacts were found relating to the plant population.

The Developer has received an updated Natural Heritage Review letter from the DNR dated January 16, 2024. The letter indicates the DNR reviewed the proposed project to determine if the

project has the potential to impact rare species or other significant natural features. The Letter determines the proposed project will not negatively affect any known occurrences of rare features. The proposed project avoidance measures will be adhered to as part of the proposed project.

MRCCA (The Mississippi River Corridor Critical Area)

The Mississippi River Corridor Critical Area (MRCCA) was created in 1976 to protect the area's natural, cultural, and scenic resources. The City adopted the DNR's updated MRCCA ordinance on December 15, 2021, which provides coordinated land use and planning, and zoning guidelines for development within the critical area. The ordinance is intended to protect existing bluffs, islands, floodplains, and wetlands and to be enforced by local jurisdictions. The proposed project was reviewed against those standards.

The development property is located within two MRCCA Districts:

- CA-River Neighborhood (RN):
    - Description. Characterized by primary residential neighborhoods that are riparian or readily visible from the river or that abut riparian parkland. The district includes parks, open space, limited commercial development, marinas, and related land uses.
    - Management purpose. Managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas. Minimizing erosion and the flow of untreated storm water into the river and enhancing habitat and shoreline vegetation are priorities in the district.

The City purchased an additional 19.91 acres to preserve as park, specifically in its natural state, within the CA-River Neighborhood (RN). The property owner is working through the sale of an additional 12 acres to the DNR to preserve as an addition to the SNA given the noted sensitive habitat within this area.

- CA-Separated from River (SR)
    - Description. Characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River.
    - Management purpose. Provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated storm water into the Mississippi River are priorities in the district. The RTC district must be managed in a manner that allows continued growth and redevelopment in historic downtowns and more intensive redevelopment in limited areas at river crossings to accommodate compact walkable development patterns and connections to the river. Minimizing erosion and the flow of untreated storm water into the river, providing public access to and public views of the river, and restoring natural vegetation in riparian areas and tree canopy are priorities in the district.

The proposed development area within the SR District will be designed to eliminate and direct any current discharge of stormwater into the Mississippi River, given approved plans will require the stormwater to be first captured through a storm sewer system, treated, and controlled through a series of BMPs and treatment cells prior to discharging to the backwaters of the river. The stormwater basins within the site provide three important benefits:

- Stormwater Treatment: Runoff from the development will flow into the ponds in rain events. Once the stormwater comes into the ponds, pollutants like sand, grit, and leaves will settle to the bottom. The City will periodically remove these pollutants as part of routine maintenance project across the community in accordance with the City's Municipal Separate Storm Sewer Systems (MS4) Permit issued by the Minnesota Pollution Control Agency (MPCA). This process ensures they do not discharge to the Mississippi River.
- Volume and Rate Control: The ponds will provide attenuation or flood storage in large rain events. Since stormwater will run off homes and streets in larger volumes and faster than it did in pre-developed conditions, stormwater piping and basins are placed around the development to collect this water and control it. In large rain events, the ponds collect water and allow it to slowly discharge out of the basins after it has been treated. The developer is required to release stormwater from the developed site at a slower rate than it was released in the pre-developed condition.
- Stormwater Infiltration: Some of the basins will be dry most of the time as they are intended to allow water to soak into the ground. This design provides groundwater recharge and aids in reducing project runoff.

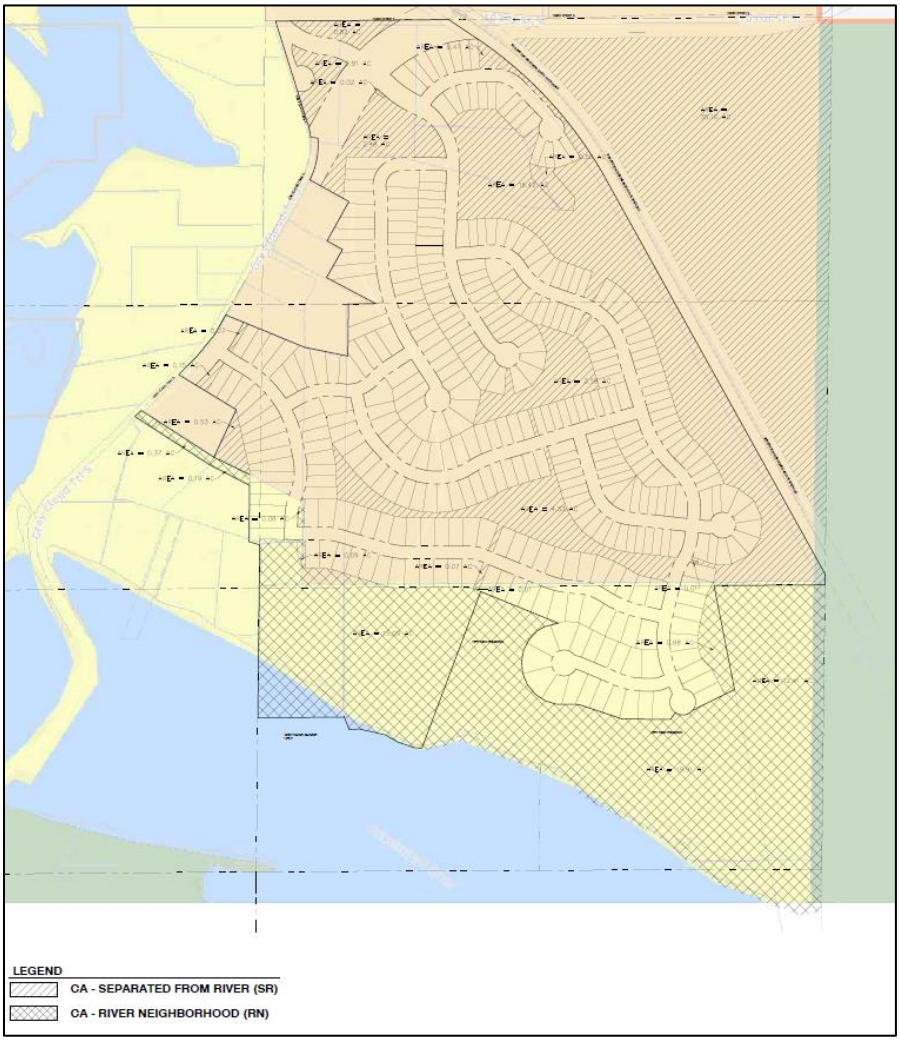
Mississippi River Corridor Critical Area Map

The districts within the MRCCA ordinance require that primary conservation areas be designated as protected open space quantities meeting the following as a percentage:

- A minimum of 20 percent preserved open space within the RN District
    - The total acreage of the subject property within the RN District is 60.85 acres. Ordinance requires 12.17 acres to be preserved. The Developer is proposing 49.14 acres, or 80.8 percent, of land be protected as open space within the RN District.

- A minimum of 10 percent preserved open space within the SR District
    - The total acreage of the subject property within the SR District is 141.39 acres. Ordinance requires 10.63 acres to be preserved. The Developer is proposing 64.45 acres, or 45 percent, of land be protected as open space within the SR District.

Between the Developer, the property owner, and the City, approximately 110 acres of the original 200-acre golf course area are being preserved as park and/or open space as part of the entire Mississippi Dunes Golf Course redevelopment area. This results in over half of the original acreage of the site being preserved as open space, future active park area and preserved by the DNR.



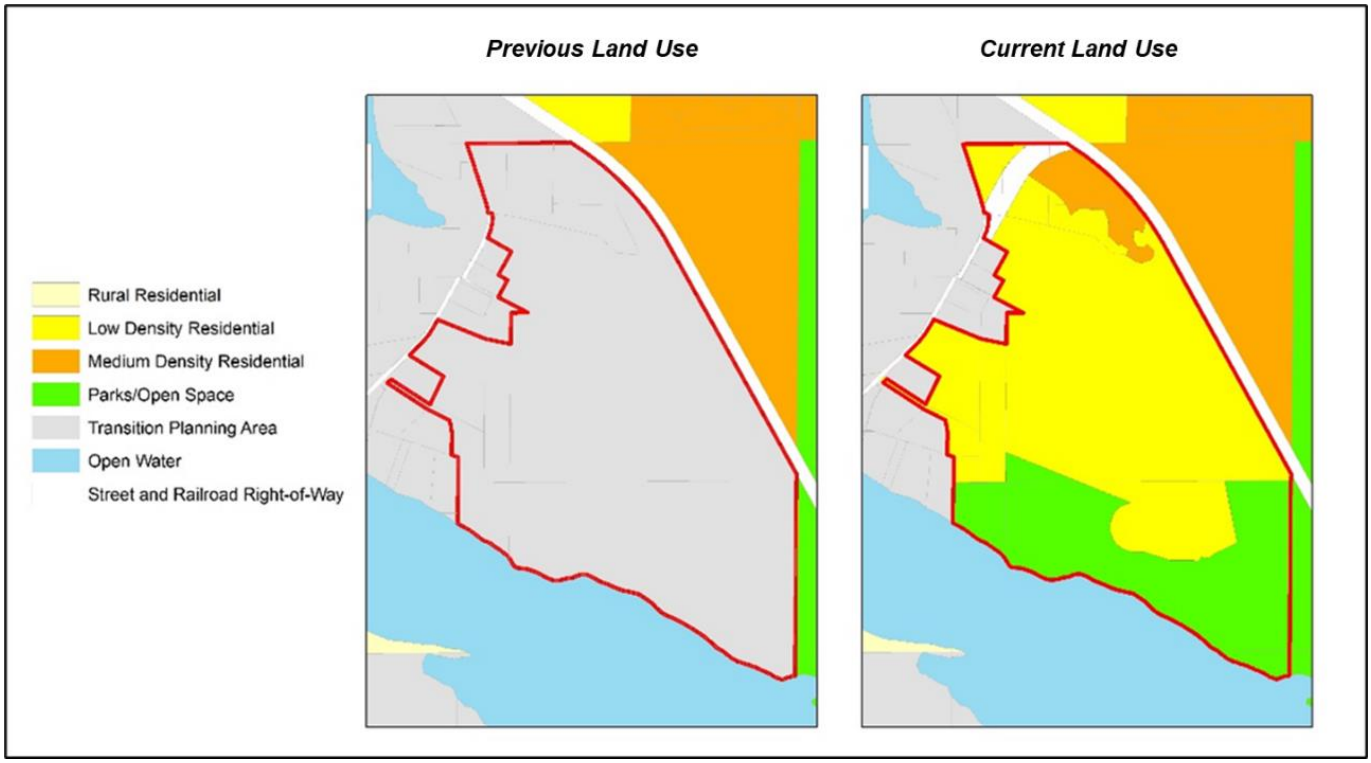
MRCCA Open Space Exhibit

The MRCCA ordinance also requires vegetation and land alteration permits. These permits are intended to provide additional levels of protection for the delicate natural habitat within the river corridor. The Developer has submitted detailed erosion, grading and landscaping plans and are in the process of review by City staff, consultants, and agencies. In addition, habitat assessments on the site have been completed.

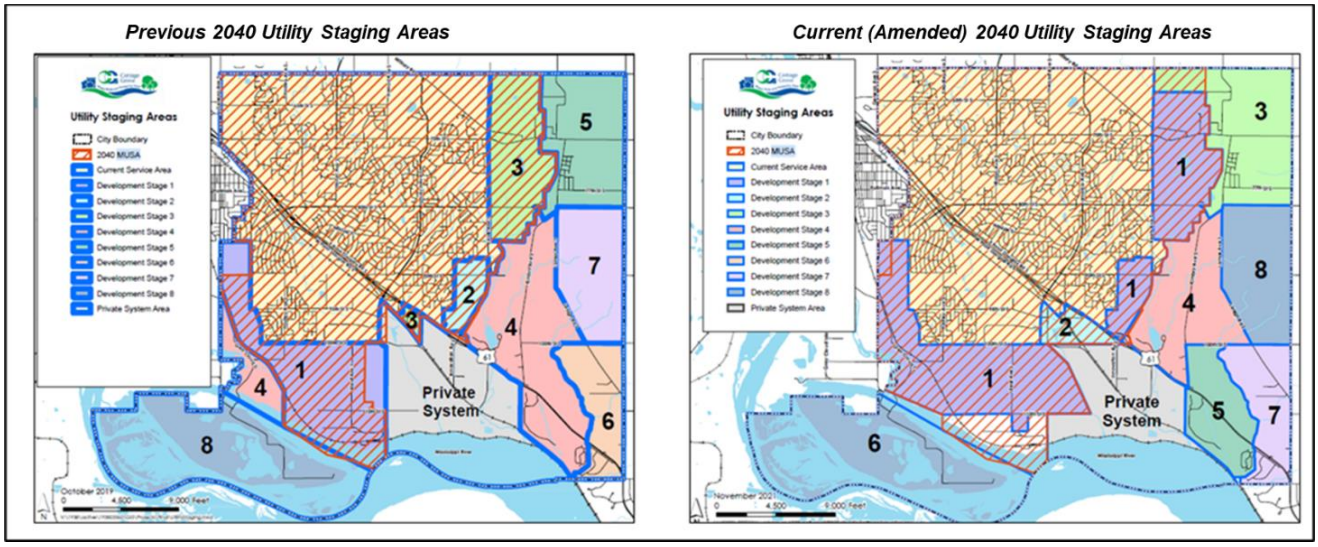
Planning Considerations

Comprehensive Plan

The development property is currently guided in the 2040 Comprehensive Plan as a mixture of Low Density Residential, Medium Density Residential, and Parks/Open Space. As part of the Master Planning process in 2021/2022, a land use amendment was requested and approved to ensure the land use map within the Comprehensive Plan aligned with the approved Master Plan.



In addition to the land use amendment that was approved in 2022, an amendment to the Utility Staging Areas in the 2040 Comprehensive Plan was also approved. During the planning process for the Master Plan, it was determined that water and sanitary sewer services could be extended to serve the proposed site. At the time, the subject site was located outside of the utility staging area and the 2040 Metropolitan Urban Service Area (MUSA) as depicted in the 2040 Comprehensive Plan. The images below show the previous Utility Staging Areas map and the current Utility Staging Areas map that was approved as part of the March 2022 amendment.



The proposed preliminary plat is consistent with the 2040 Comprehensive Plan in the following ways:

- The Land Use Map in the 2040 Comprehensive Plan identifies the future land use development of the subject property as low to medium density residential. The Developer is proposing single-family lots for the subject property, which is consistent with the 2040 Comprehensive Plan.
- The proposed density of 2.47 units per acre is consistent with the Low Density Residential (1-4 units per acre) and Medium Density Residential (5-13 units per acre) land uses.
- The proposed development helps provide the City with a diverse mix of housing types that are needed to serve various income levels and stages of life.
- The proposed preliminary plat and grading plan are consistent with the given land use designation for this area.

2040 Comprehensive Plan: Land Use Map

Zoning

The subject site is currently zoned R-3, Single-Family Residential (1-4 units per acres) and R-5, Medium Density Residential (5-13 units per acre). Density is calculated using net acres, area of

the development less area below high-water levels of ponding areas, delineated wetlands, and major road right-of-way. The Developer's proposal, including a Planned Unit Development (PUD), aligns with the current zoning districts and the long-term growth plan for the parcels as outlined in the Comprehensive Plan Land Use Map and Mississippi Dunes Master Plan.

The development proposal by Pulte Homes in 2022 included 312 single-family lots as well 60 units provided as age restricted twin homes and a condo building. Given the Rachel proposal includes only single-family homes, the density is averaged across the development area including the medium and low-density zoned areas. The development is proposed at 2.47 units per acre (377 proposed units/172.3 acres – 19.55 (total site acres less area below high-water levels of ponding, delineated wetlands, and major road right-of-way)) averaged across the low and medium density areas, below the permitted 1-4 units per acre in the low-density zoned area and 5-13 units per acre in the medium density zoned area.

Preliminary Plat

The preliminary plat, as proposed, depicts a logical development given the performance standards of the zoning district. The plat consists of 377 owner-occupied units varying in lot sizes and principal structure sizes.

Preliminary Plat

Proposed Development Outlots

The proposed preliminary plat creates 17 outlots throughout the development that are proposed to be owned by various entities in the long term. In addition, 5 lots are being created for parks and open space which are detailed in the park section of this report. The table and image below provide the proposed outlots and the intended long-term ownership of each outlot.

Proposed Development Outlots

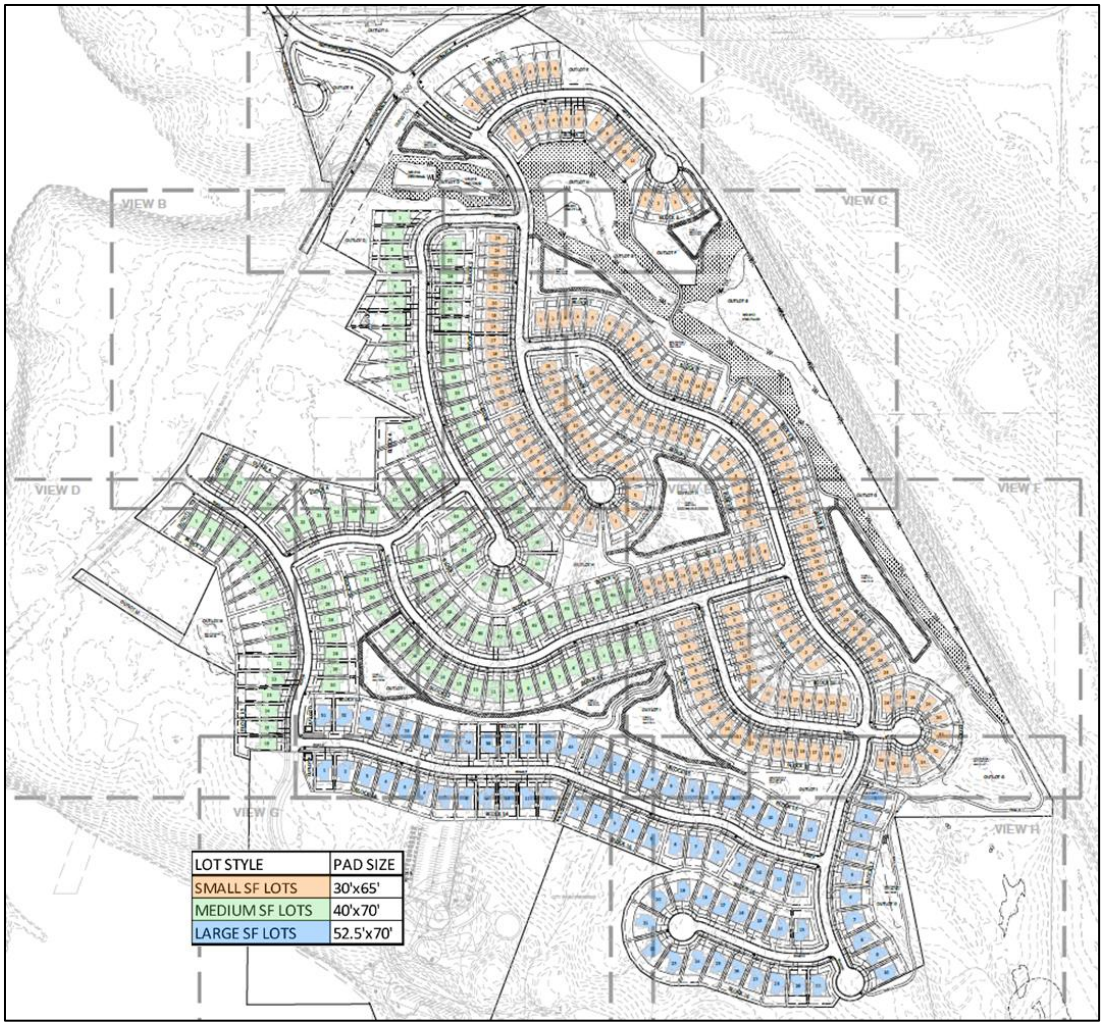
Proposed Development Outlots, Proposed Long-Term Ownership, & Proposed Use		
Proposed Development Outlot	**Proposed Long-Term Ownership**	**Proposed Use**
Outlot A	City	Future use may be for stormwater treatment.
Outlot B	City	Future use intended for lift station and potentially stormwater treatment.
Outlot C	Master HOA	Entry monument and landscaping.

Outlot D	City	Contains wetlands and stormwater facilities.
Outlot E	HOA, one of the sub-associations.	Primary use is open space for the neighborhood.
Outlot F	HOA, one of the sub-associations.	Primary use is a private park for the neighborhood.
Outlot G	City	Contains wetlands, trails, and stormwater facilities.
Outlot H	City	Contains wetlands, trails, and stormwater facilities.
Outlot I	City	Contains wetlands, trails, and stormwater facilities.
Outlot J	HOA, one of the sub-associations	Entry monument and landscaping.
Outlot K	Master HOA	Entry monument and landscaping.
Outlot L	Master HOA	Entry monument and landscaping.
Outlot M	Developer	Access during construction, long-term HOA owned or potentially deeding land to adjacent property owners.
Outlot N	HOA or property owners of lots	Open space and stormwater drainage area.
Outlot O	HOA, one of the sub-associations	Entry monument and landscaping.
Outlot P	HOA, one of the sub-associations	Entry monument and landscaping.
Outlot Q	City	Part of trail system.

Zoning Development Standards

The Developer is proposing three distinct neighborhoods with differing product types and minimum lot widths. The varying neighborhoods consist of minimum lot widths of 40-feet, 52.5 feet, and 65 feet while the R3 Zoning District allows for a minimum lot width of 65 feet. The Developer has proposed the variation in lot sizes as part of their PUD request to support several product types at varying price points to allow for housing opportunities that promote life-cycle housing and meeting the Council's goals of providing several housing opportunities adjacent to the Mississippi River.

Number of Units Based on Lot Sizes	
Minimum Lot Width	**Number of Lots**
40-foot lot width	183 lots
52.5-foot lot width	117 lots
65-foot lot width	77 lots



Proposed Lot Widths

The development performance standards of the requested zoning district classifications are detailed below. As part of the PUD request, the Developer is proposing varying setbacks for the varying lots. These adjusted setbacks allow for the lots to support varying product types within each neighborhood; however, the proposed setbacks will continue to provide building separation of 12.5 feet.

Lot Development Performance Standards			
Standard	**Proposed 40' Lot Width**	**Proposed 52.5' Lot Width**	**Proposed 65' Lot Width**
Minimum Lot Area	5,000 sf	6,825 sf	8,450 sf
Minimum lot width at the front setback	40 feet	52.5 feet	65 feet
Minimum side yard setback, house	5 feet	6.25 feet	6.25 feet
Minimum side yard setback, garage	5 feet	6.25 feet	6.25 feet

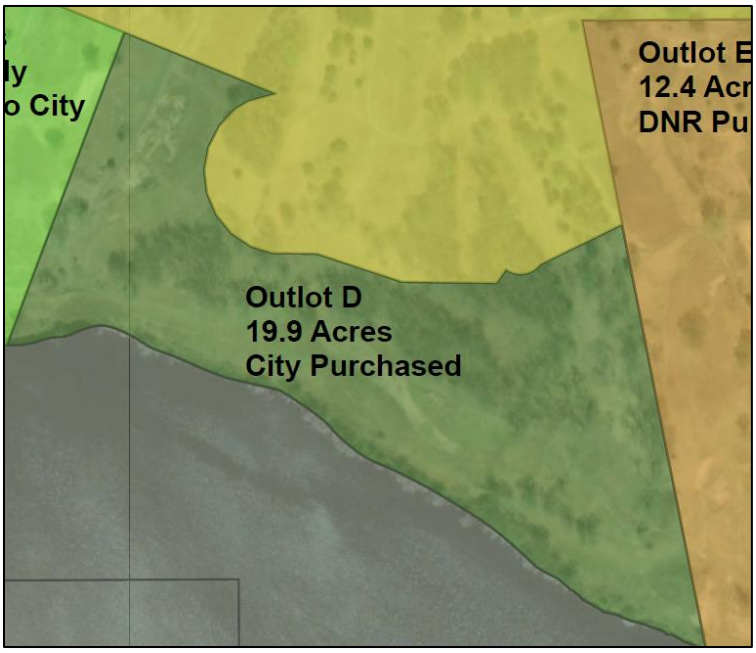
Minimum front yard setback	20 feet	25 feet	25 feet
Minimum rear yard setback	20 feet	35 feet	35 feet
Corner lot setback	20 feet	20 feet	20 feet
Maximum Principal structure height	30 feet	35 feet	35 feet

Park Land and Open Space

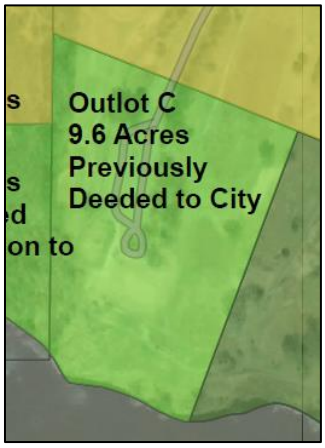
A minimum of 10 percent of developable area (areas below the highwater level of ponding areas and right-of-way are deducted) shall be required to be dedicated for new developments to provide residents with public recreation facilities including parks and open spaces as a part of development projects per City Code Title 10-4-3. The approved Mississippi Dunes Master Plan guides the southerly portion, 45.7-acres of the site for future park and open space.

Given the City and the property owner's commitment to preserving the entire area adjacent to the Mississippi River as park and open space, 29.51 acres of the planned park and open space to date has been acquired by the City. Four acres are proposed to be dedicated as part of the proposed development and an additional 12.4 acres are proposed to be purchased by the DNR. The projected total area of park and open space the property owner has committed to public open space is approximately 80.8 acres in total, only approximately 19.2-acres (10 percent of the total project area, approximately 200 acres) are required to be dedicated per City Code.

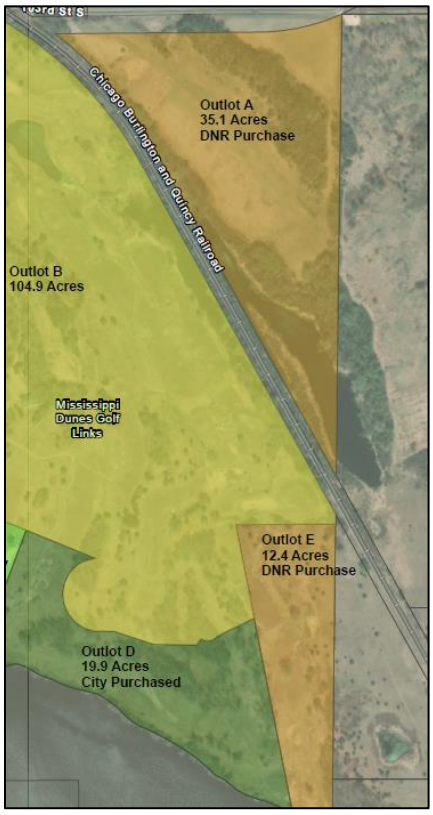
The City purchased 19.91 acres of this area in coordination with the County and their Land and Legacy grant funding. As part of the purchase of these acres, the City is committed to preserving this area as passive open space and limited improvements are permitted to be made within this area. The City has submitted an application for habitat restoration of 19.91 acres of conservation area. If approved, it would be a three-year effort to remove invasive, dead, or dying species and repopulate with native prairie, woodland, and wetland species within this open space area.



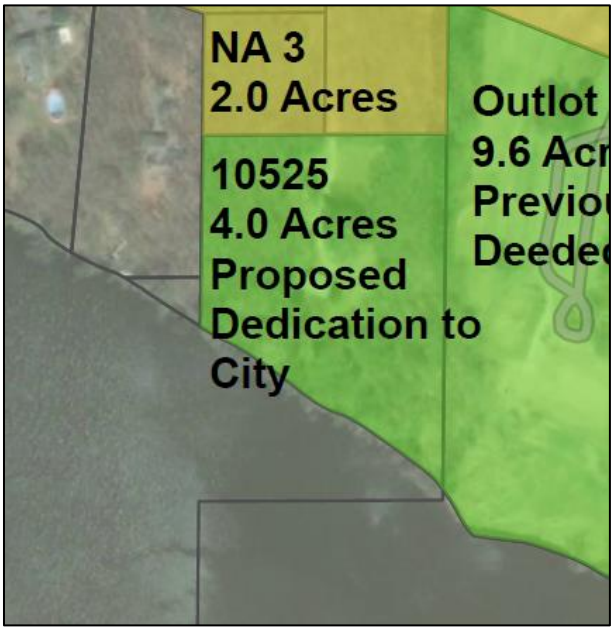
The property owner deeded Outlot C (9.6-acres), as shown in light green in the image below, to the City prior to development moving forward.



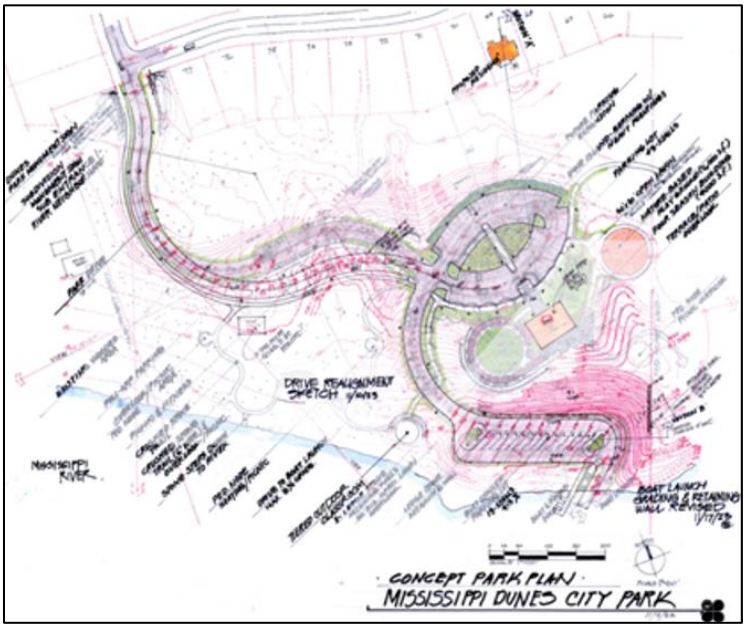
The property owner continues to work with the DNR for purchase of 12.4-acres in the southeast corner of the development area as well as Outlot A (35.1-acres, the previous driving range). The DNR has indicated this area of the development site to be the area of highest significance with habitat properties similar to that of the SNA. The DNR purchase of these parcels will provide for safe public access to the southern portion of the existing SNA property that does not exist today. Legal public access from the City's park and open space would be provided to the additional acres purchased by the DNR on the south side of the railroad tracks. The two parcels noted for DNR purchase are shown in orange in the image below.



As part of the development, an additional four acres is proposed to be dedicated to the City as park and open space. The four acre parcel is shown in light green in the image below.



Staff is currently in the process of hiring an architect for the proposed building in an effort to amend the park master plan to fit the modified site as proposed in the development proposal. The recreational elements within the original master plan will remain, but staff is analyzing what adjustments may be necessary or advantageous with the proposed road realignment and potential site grading changes. The building will be a key focal point for entry and activity of the park, so having a concept plan to steer amendments to the park master plan will allow us to address recreational features, ADA compliance, road, trail, boat launch and supporting landscaping elements of the entire park.



Preliminary Park Rendering

Historical Review – William Cowan House

Current William Cowan House

The William Cowan/Okey House located at 10301 Grey Cloud Trail has been identified as a priority site in the City's Historic Preservation Strategy Report. The City's report indicated the structure embodies the distinguishing characteristics of architectural type or style, or elements of design, detail, materials, or craftsmanship. The house was built circa 1850s and is of Greek Revival architecture. A Finding of Significance was completed by the Cottage Grove Advisory Committee of Historical Preservation in 1990 and submitted to Minnesota State Historic Preservation Office.

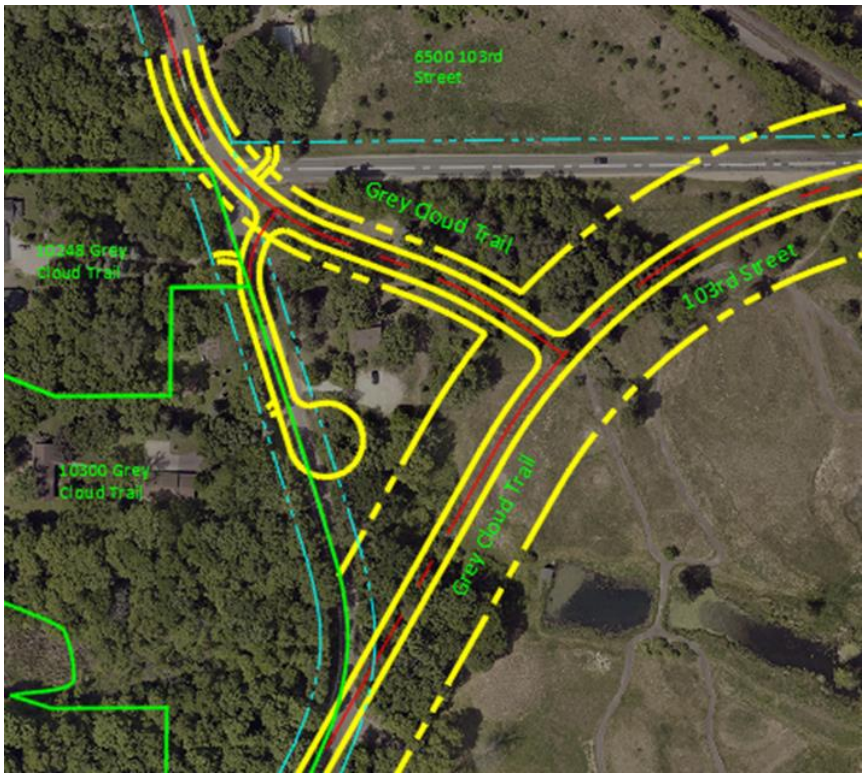
At their October 6, 2021, meeting the City Council approved the hiring of New History to assist City staff on planning cases that have a historic preservation component. New History is an accredited historical consulting company based in Minneapolis that works with clients throughout Minnesota and the Upper Midwest. New History completed a historical evaluation and provided a professional opinion of significance on the subject property. Research and on-site investigation suggest that the property has experienced significant alterations since its original construction. Most noticeably the development of the golf course and additions to the house. These alterations to the property have impacted the integrity and it may no longer be eligible for local or national designation.

As part of the development application, the Developer is proposing to create an outlot which would include the house and barn. Given the locations relation to the realigned 103rd Street and the proposed lift station location the structure may have to be removed. The City will work with the ACHP and the Developer for documentation of the existing site prior to any activity or alteration of the site. Documentation will include photographs and video prior to the removal of the structure. Following removal of the structure, the Developer has committed to documenting the site and providing a plaque on the site. In addition, further documentation will include photographs, video, and retention of key pieces of the structure. The Developer will be responsible for removal of the structures, sealing of the well and abandonment of any septic infrastructure on the site prior to deeding the parcel to the City.

Transportation

The County conducted and approved their Southwest Arterial Study in November 2020 for this area of the community, specifically from Highway 61 to Grey Cloud Island. The County's goal was to review alignment options for a County arterial roadway connection from Highway 61 to their future proposed regional park located on Lower Grey Cloud Island. The study identified two potential alignments of 103rd Street through the Mississippi Dunes site and determined the route aligning with the current Grey Cloud Trail to be the most appropriate. With that said, the proposed realignment of 103rd Street at Grey Cloud Trail will be required to be completed as part of this proposed development project. Right-of-way needs for 103rd Street will be coordinated with Washington County considering the future County roadway corridor, similar to the Settlers Bluff development. The development would access off the realigned 103rd Street at the north end of the development as well as Grey Cloud Trail further to the southwest. Both 103rd Street and Grey Cloud Trail north of 103rd Street are Municipal State Aid (MSA) streets and will be designed to MSA standards.

The realignment of 103rd Street will also require adjustment to existing driveways for several parcels on the west side of Grey Cloud Trail. The Developer has proposed platting of additional right-of-way and construction of a cul-de-sac which would support the existing two driveway accesses. In addition, with the realignment of 103rd Street, a portion of the existing prescriptive roadway easement will not be needed any longer and therefore, the City will work with the adjacent property owner on realignment of the existing driveway as well as restoration expectations of the old roadway corridor. The City has reached out to each of these impacted residents to ensure they are aware of the proposed adjustments and will work with them directly through the planning and construction process.



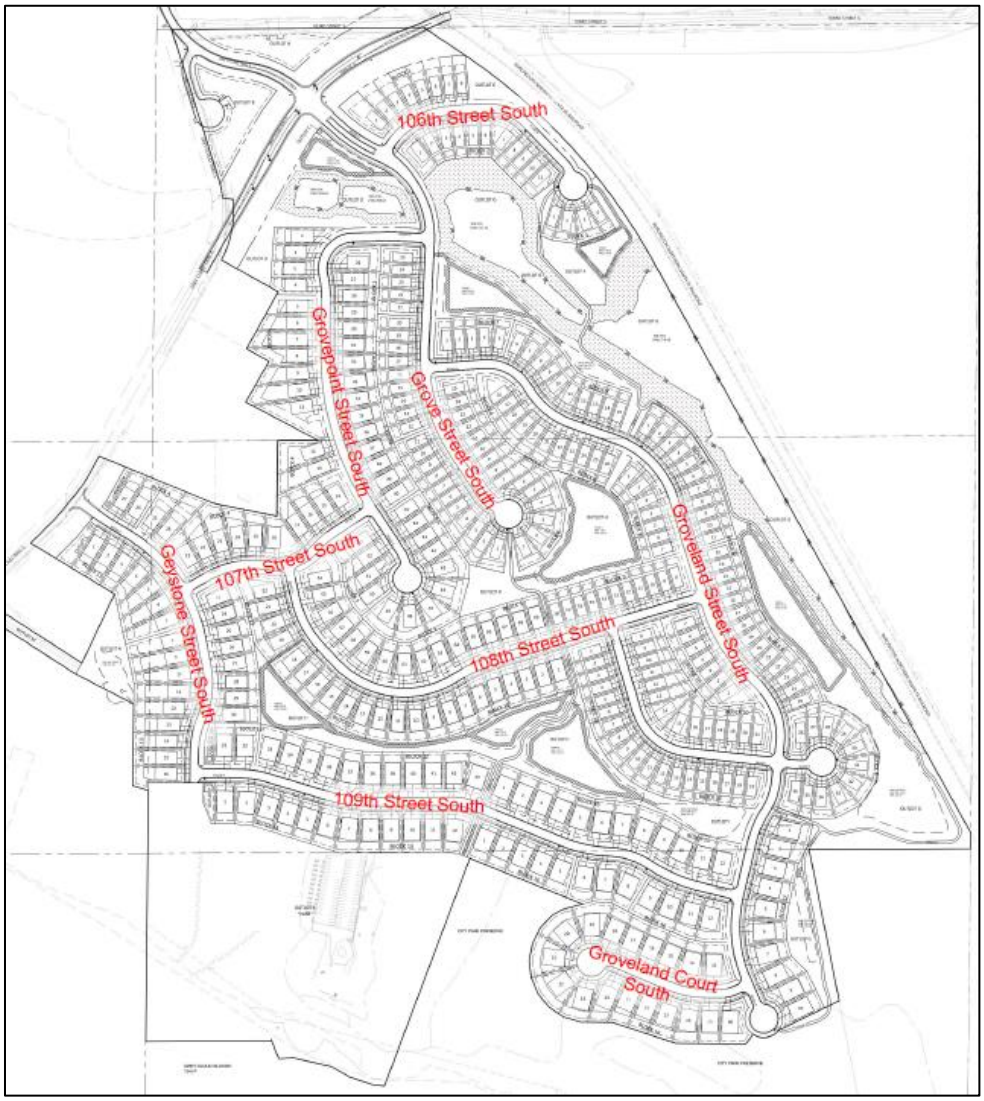
Proposed Cul-De-Sac

The former applicant (Pulte Homes) conducted a Traffic Impact Study (TIS) to understand the potential impacts to the adjacent roadway networks as part of the development. In the TIS, a no-build scenario was also reviewed for comparison. While the current proposal does include more single-family residential lots than the previous development, the overall total number of units and trips generated are equal to or less than what was proposed in 2022. Therefore, the information provided in the TIS is still valid and can be referenced as part of the proposed development.

The Pulte study indicated all seven of the evaluated intersections will continue to operate appropriately at both build and no build conditions. By 2040, delay is increased but levels of service are still considered to be acceptable. A minimal operational impact on the surrounding roadway network and adjacent property owners is proposed, consistent with other developments within the City. Dedicated turn lanes are proposed on 103rd Street into the development. Also, improvements to the 103rd Street bridge approach will be made, including flashing bridge height warning signs, flashing stop signs at the bridge, and advance warning “stop ahead” signs with flashers to alert drivers of the unusual stop condition.

Street Names

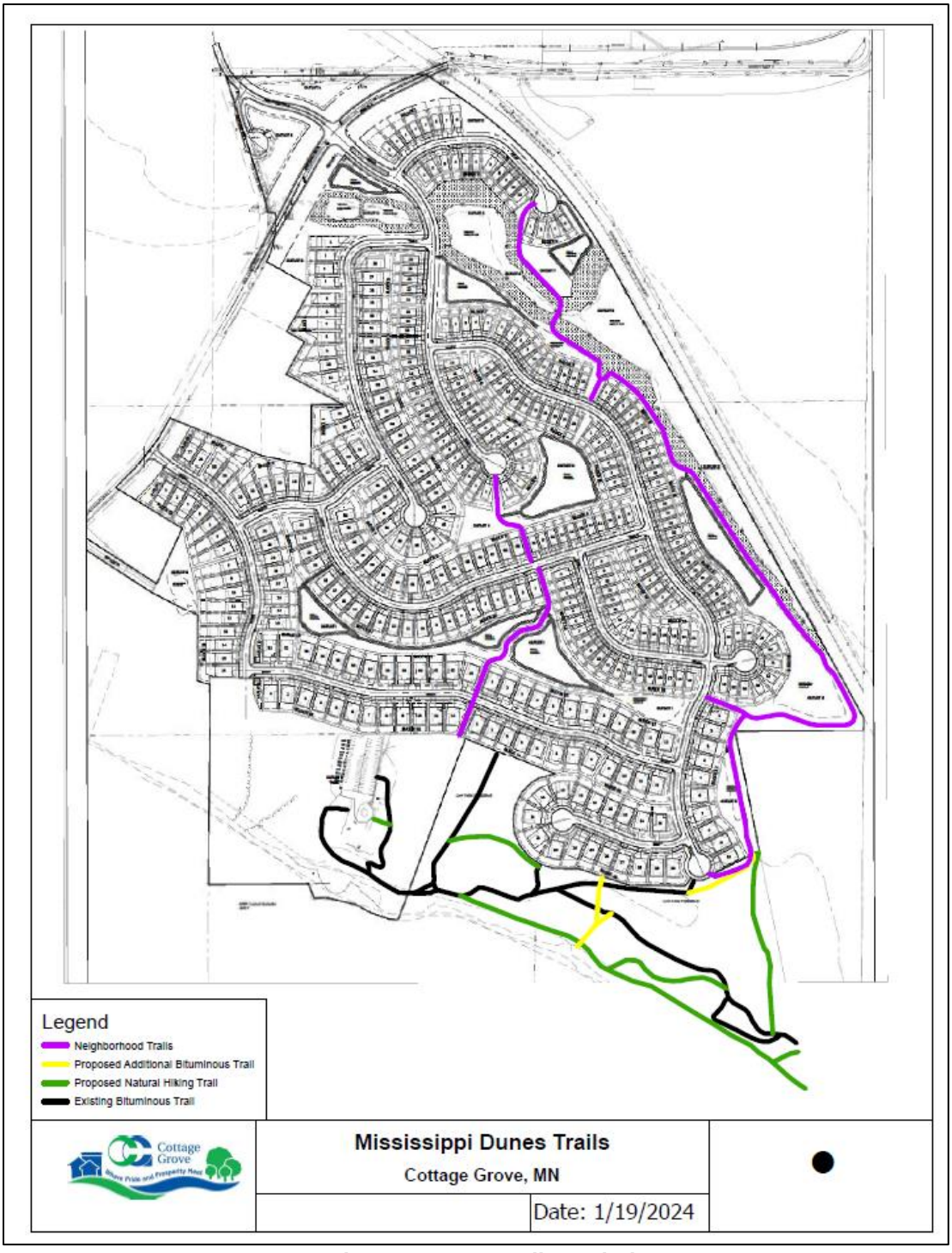
Street names will be designated per Washington County's uniform street naming guide. The proposed street names, shown below, will undergo a final review by the City's Public Safety Department to ensure the most efficient emergency response to the area. All street names must be labeled on the final plat.



Proposed Street Names

Trails and Sidewalks

Given the unique location of the development property and the proximity to the Mississippi River and the DNR's SNA area to the east, the Developer placed focus on providing pedestrian accessibility throughout the development area and connection to both the adjacent recreational locations and the regional trail corridor existing today along 103rd Street and Grey Cloud Trail. Sidewalk is proposed on one side of public streets within the Mississippi Landing portion of the development which also provides connections to proposed trails within the dedicated and maintained open spaces of the development. In addition, the proposed development will support a network of sidewalks and trails which will ultimately connect to the Great River Trail as well as future City trails within the future park area.



Development Area Trail Rendering

Tree Preservation

City Code Title 11-6-19 requires completion of a tree inventory (all qualifying trees) for the entire project area of a proposed development. Inventories can be completed as an individual tree inventory and/or large woodland tract inventory. An individual inventory provides the tree species, diameter inches, and health of each individual qualifying tree on site. A large woodland tract (contiguous canopy equal to 7,500 square feet or greater), can be utilized to get an average of the

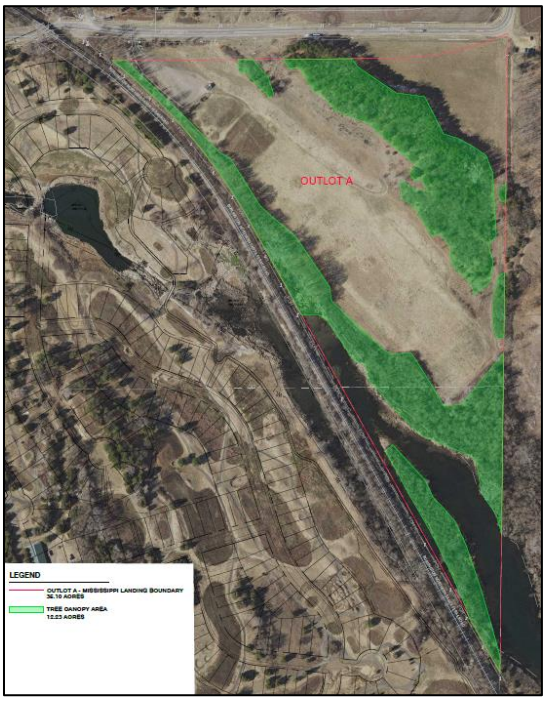
qualifying inches within preserved canopy areas without inventorying each individual qualifying tree.

The previous project proposer conducted and completed an individual tree inventory throughout the entire development site which the City accepts as part of the current development proposal on the site. Since the previous development proposal, the City's Tree Mitigation ordinance was updated permitting removal of 25 percent of the overall qualifying inches on a residential development site and removing any species on the DNR invasive species list as a qualifying tree. Qualifying inches removed above and beyond the permitted removal rate continue to be required to be replaced on site or the City's tree mitigation fee paid ($150 per qualifying inch).

Given the ordinance adjustment, the Developer has reevaluated the tree inventory outlining an updated mitigation requirement:

Total Existing Qualifying Inches	Permitted Removal Threshold	Inches Permitted to be Removed	Inches Removed	Excess Inches Removed	Replacement Rate	Replacement Inches Required
40,720	25%	10,180	26,839	16,659	50%	8,329

The old driving range area currently Outlot A, is under contract to be sold to the DNR, the City recognizes this will preserve a large number of existing qualifying trees on that site that otherwise may have been removed at such time that site was developed. Credit is proposed to be given to the remainder of the development site for the preserved trees as identified using the woodland tract method outlined in the City's code. The areas of wooded cover have been measured in square feet (532,738 square feet) and divided by the code required proxy of 60: 8,878 preserved inches.



Woodland Tract Tree Canopy Area

The Developer is proposing additional plantings above the minimum required landscape plantings of 132 trees (2,351 caliper inches) within outlots and ponding areas of the development. These proposed additional trees provide credit to the required mitigation inches on the site. In addition to the plantings, the project is preserving the driving range (35.1-acres) which is credited towards the mitigation required. If Outlot A (35.1-acres) is not sold to the DNR, mitigation of inches that are not replaced on the development site (5,978 inches), will be required to be paid by the property owner.

Replacement Inches Required	Proposed Replacement Inches	Woodland Tract (previous driving range)	Remaining Mitigation Inches
8,329	2,351	8,878	-2,900

The Developer has agreed to work with the Park and Recreation Department to clean up the area of future park and open space adjacent to the entrance road. Removal of dead, diseased, and trees will be required to be cleaned up on the site.

Landscaping

City Code requires landscape plantings be installed as a part of single-family development projects within the City. The required plantings per City Code Title 11-3-12 are detailed below.

Landscape Lot Performance Standards		
Standard	**60' Lot Width or Less**	**60' Lot Width or Greater**
Boulevard Trees	1 per adjacent street	1 per adjacent street
Lot Trees	2 per lot	3 per lot, no less than 2 different species
Shrubs	10 per lot	10 per lot

In order to ensure survivability and practical planting locations of lot landscaping, the Developer has proposed varying landscaping standards based on lot width. The proposed landscape performance standards of the requested lot size classifications are detailed in the table below.

Proposed Landscape Lot Performance Standards			
Standard	**Proposed 40' Lot Width**	**Proposed 52.5' Lot Width**	**Proposed 65' Lot Width**
Boulevard Trees	Every other lot, 1 per adjacent street	Every other lot, 1 per adjacent street	Every lot, 1 per adjacent street
Lot Trees	2 per lot (one can be ornamental)	2 per lot (one can be ornamental)	3 per lot
Shrubs	5 per lot	10 per lot	10 per lot

The Developer has provided a landscape plan identifying boulevard trees and lot landscaping. Boulevard trees are proposed to be reduced to every other lot on the 40' and 52.5-foot-wide lots to avoid overcrowding and reduced impact to streetlights, hydrants, and utilities. This number of boulevard trees was also permitted on the 40-foot-wide lots approved within the Settlers Bluff development. This proposed boulevard tree layout has been reviewed and approved by the City's forester to ensure survivability of the boulevard trees. The larger lots within the development are

proposed with a boulevard tree per each lot. All corner lots will be required to have one boulevard tree per street frontage. A condition of approval will require planning department approval of the final landscape plan.

Given the Developer is proposing to maintain a large number of existing trees on the site, specifically a large number within proposed lots, several lots will not require the total number of rear yard lot trees to be planted given the large number of existing trees preserved on the lots. These lots will require a front yard tree and a boulevard tree:

Block 4, Lots 5-13, 16-17, 19-21, 24-27

Block 13, Lots 1-16

Block 14, Lots 1-5, 22, 28-30

Preserved Rear Lot Trees

These areas of preserved trees will also provide an additional buffer from adjacent properties in addition to the proposed lot depth.

In addition, the Developer is proposing to plant one rear yard tree on lots adjacent to the City-owned parkland. The remaining required trees per the lots listed below, and as shown in the image below, will be required to be planted throughout the development.

Block 14, Lots 6-12

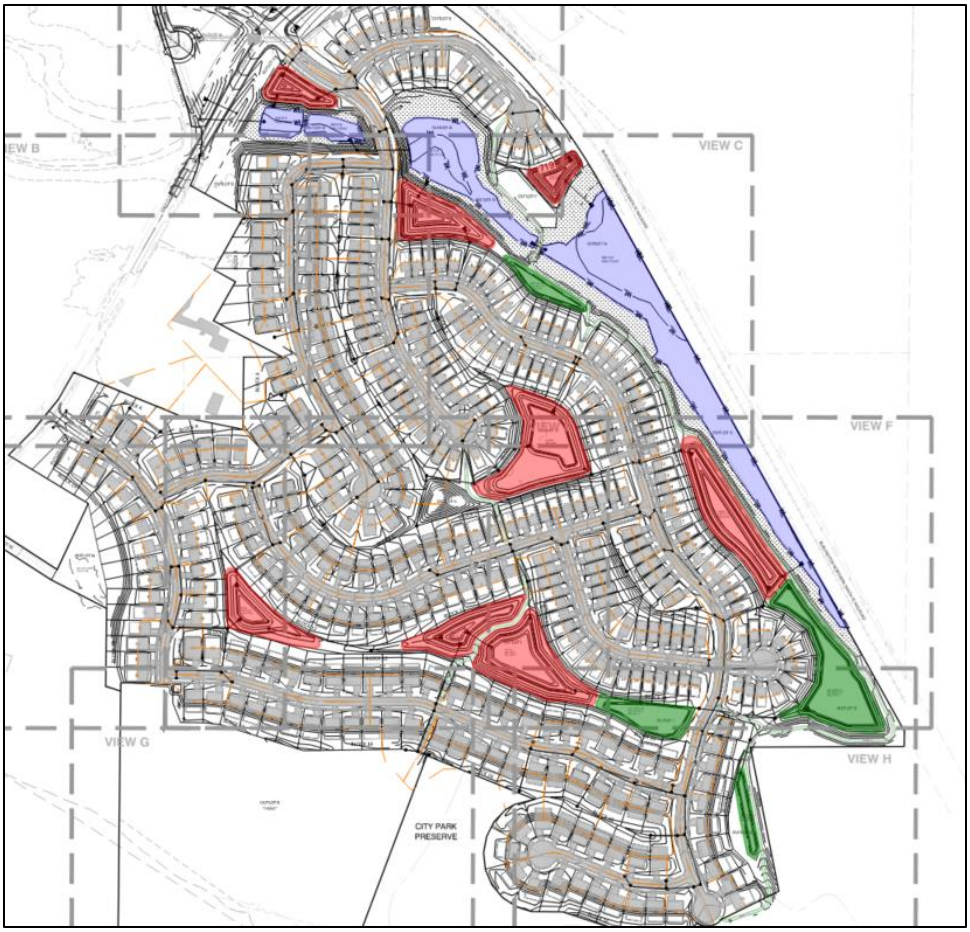
Block 16, Lots 1-5, 19-21, 23-27

Stormwater Management Plan

Storm sewer will be extended from all streets to the stormwater basins proposed throughout the development. The proposed basin areas require access points, which are to be a minimum of 20 feet wide, to allow for maintenance of the infrastructure in the future. The Developer has depicted these required pond access routes to all proposed ponding areas and will be required to dedicate the accesses as part of the outlot with which the basin resides to the City. The property owners on either side of these access routes will be required to maintain the vegetation to the centerline of the access. The storm sewer system and stormwater management facilities will be designed and constructed to City standards and the City will own and maintain them upon acceptance.

The development stormwater runoff will be captured in a network of underground storm sewer pipes that direct the runoff to drainage swales, ponds, and infiltration devices. The front yards and driveways will drain into the street, combine with the street runoff and be captured by drains, or catch basins. Pipe networks connect catch basins to the holding ponds throughout the development which are shown in red on the image below.

As noted in the MRCCA section, the stormwater devices serve to remove pollutants in the runoff such as nitrogen, phosphorus, and eroded soil, and provide controls for the rate and volume of development runoff. Other devices are installed, like skimmers, to aid in ensuring floatable materials are not released downstream from the development storm sewer system. Generally, these stormwater ponds discharge to the infiltration ponds that are shown in green on the image below. The infiltration ponds allow the runoff to soak into the ground.



Mississippi Landing Stormwater Management Facilities

A wetland delineation has been completed and a wetland buffer identified surrounding the delineated wetland areas which will be protected and preserved as part of mass site grading. The wetlands, highlighted above in green, will be located within outlots owned and maintained by the City. The South Washington Watershed District will act as the Local Government Unit (LGU) for administration of the Wetland Conservation Act (WCA). The Developer is proposing to fill minimal areas of the wetland area to the north mainly for the construction of the access road into the development and the realignment of 103rd Street. Wetland Impacts and mitigation will be identified with the preparation of a wetland replacement plan by the Developer. Wetland credits will be obtained from an approved state and federal wetland bank.

The preliminary stormwater management plan, dated December 20, 2023, was submitted and reviewed by the City's engineering staff, and their comments are included in a plan review letter dated January 17, 2024. The Developer's engineering consultant will continue to work with the City Engineer and SWWD to address stormwater requirements and provide wetland delineation documentation.

Grading

As with all new development projects, site grading is necessary to provide on-site stormwater detention, street and building pad elevations, and drainage swales for routing surface water runoff to appropriate storm sewer systems. Each building pad will be graded above the street elevation and at least three feet above the 100-year high-water elevation for adjacent stormwater basins.

As noted on the preliminary Erosion and Sediment Control Plan, silt fence will be installed along the perimeter of the grading limits. Part of the grading requirements for the site includes construction of the required ponding for the site.

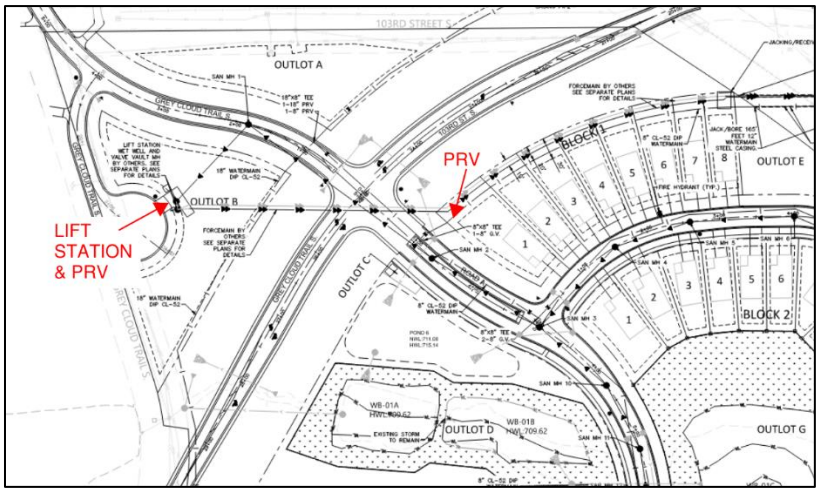
The future City park that will be constructed on the southwest corner of the development will require grading to prepare for a future park building, access road, and associated park areas. The Developer is proposing to rough grade and remove material from this area and spread it within the development. This partnership will result in a cost saving to the Developer as they do not need to haul in the additional fill material, as well as the City at the time of park development.

The preliminary grading plan (dated: December 20, 2023) was reviewed by the City's engineering staff, and their review comments are included in the January 17, 2024, memorandum. Additional grading and drainage review will be required upon submittal of an updated plan set. These plans are required to be submitted and approved prior to issuance of a grading permit.

Utilities

The installation of the on-site utilities, roads, and supporting infrastructure will be privately designed and constructed to meet City standards and specifications. The Engineering memo dated January 17, 2024, addresses the connections for the project. Drainage and utility easements are required over all utility connections and infrastructure, not within City right-of-way, allowing the City access to public infrastructure.

The proposed development will require a lift station given the lower elevation of the area in comparison to the Metropolitan Council sanitary sewer interceptor which is the ultimate discharge point for the City's sanitary sewer. Since the lift station would also ultimately serve other surrounding areas due to elevations, the City and Developer are sharing the cost of design and construction. At this time, the City's consultant is working through the design of the Lift Station plans that would then ultimately be bid and constructed by the Developer. Construction cost share will ultimately be determined once bid results have been obtained and percentage-based value can be applied. The lift station and forcemain will be constructed with a discharge point into newly constructed trunk sanitary sewer installed as part of the City's South District Street and Utility Project near the intersection of Hadley Avenue and 103rd Street. The lift station is proposed to be constructed on Outlot B and will be owned and maintained by the City.



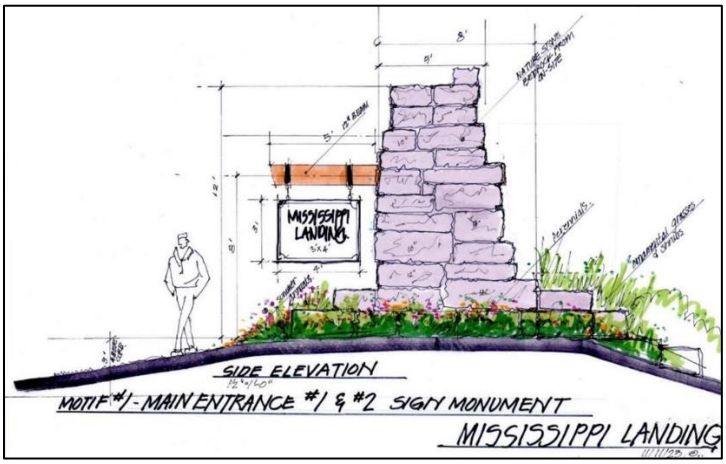
Proposed Lift Station and Pressure Reducing Valve (PRV) Locations

Water main will be required to be looped through the site. Two connection points have been identified south of the recently developed Settlers Bluff neighborhood for an 18-inch trunk main and 8-inch water main to be extended along 103rd Street to the development. The 8-inch watermain construction will require acquisition of easement on two parcels along 103rd Street. Due to the low elevation of the site, pressure reducing valves will be required on both the 18-inch and 8-inch water mains. Connection and extension of both water mains will provide the necessary looping to the development for continuous service and fire flow in the event of a damaged pipe segment.

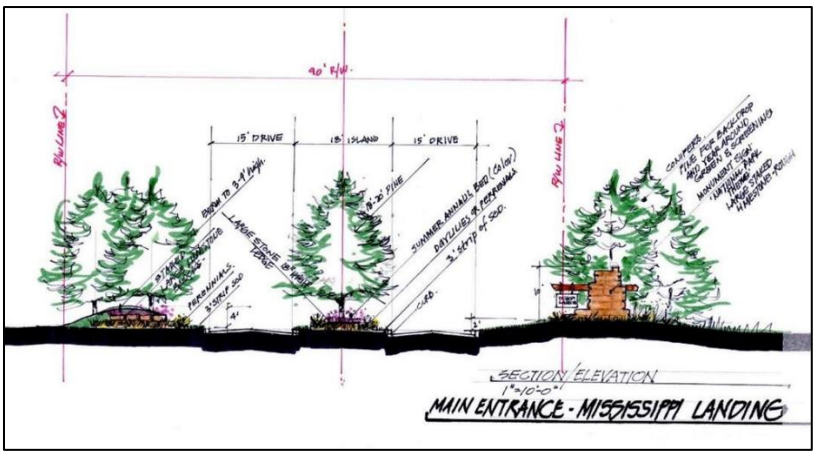
Sewer and water extensions to the site will require crossings of the BNSF railway. The Developer will coordinate with BNSF to comply with required utility crossing requirements adjacent to the existing bridge.

Monument Signs

The Developer is proposing to plat multiple outlots (Outlots C, K, L, O, P, J) to be utilized for potential entry monuments with landscaping. These outlots will be required to be owned and maintained by the HOA. A separate building permit will be required to be secured prior to construction of the proposed sign. As part of the PUD flexibility, the Developer has indicated the intent to have 12-foot to 12.5-foot-tall entrant monument signs. In addition, the Developer has submitted renderings of potential entrance monument signs which will ideally utilize limestone from within the project areas.



Potential Entrance Monument Sign Rendering



Entrance Monument Sign Rendering – Cross Section

Fencing

Any fencing proposed on lots adjacent to the City park will be required to be uniformly designed with uniform color. The developer should communicate that all new property owners of Lots 12-16, Block 13; Lots 1-12, Block 14; Lots 1-6 and 19-30, Block 16; and Lot 10, Block 17 are required to plan for the installation of fencing with uniform design and color. This will be required to be included in the HOA covenants and provided to the City prior to issuance of a building permit.

Architecture

The Developer has indicated the intent to create three distinct neighborhoods consisting of at least three builders and various product types and price ranges within the proposed development. The Developer has stated the intent to have Capstone Homes construct product on the 40-foot lots, M/I Homes to construct product on the 52.5-foot lots, and multiple custom builders to construct product on the 65-foot lots. The Developer has also stated each HOA Sub-Association will have their own architectural guidelines based on the product that is being constructed. Renderings of the proposed products on each lot size are included below.

Proposed 40-foot Lot Product – Capstone Detached Townhome

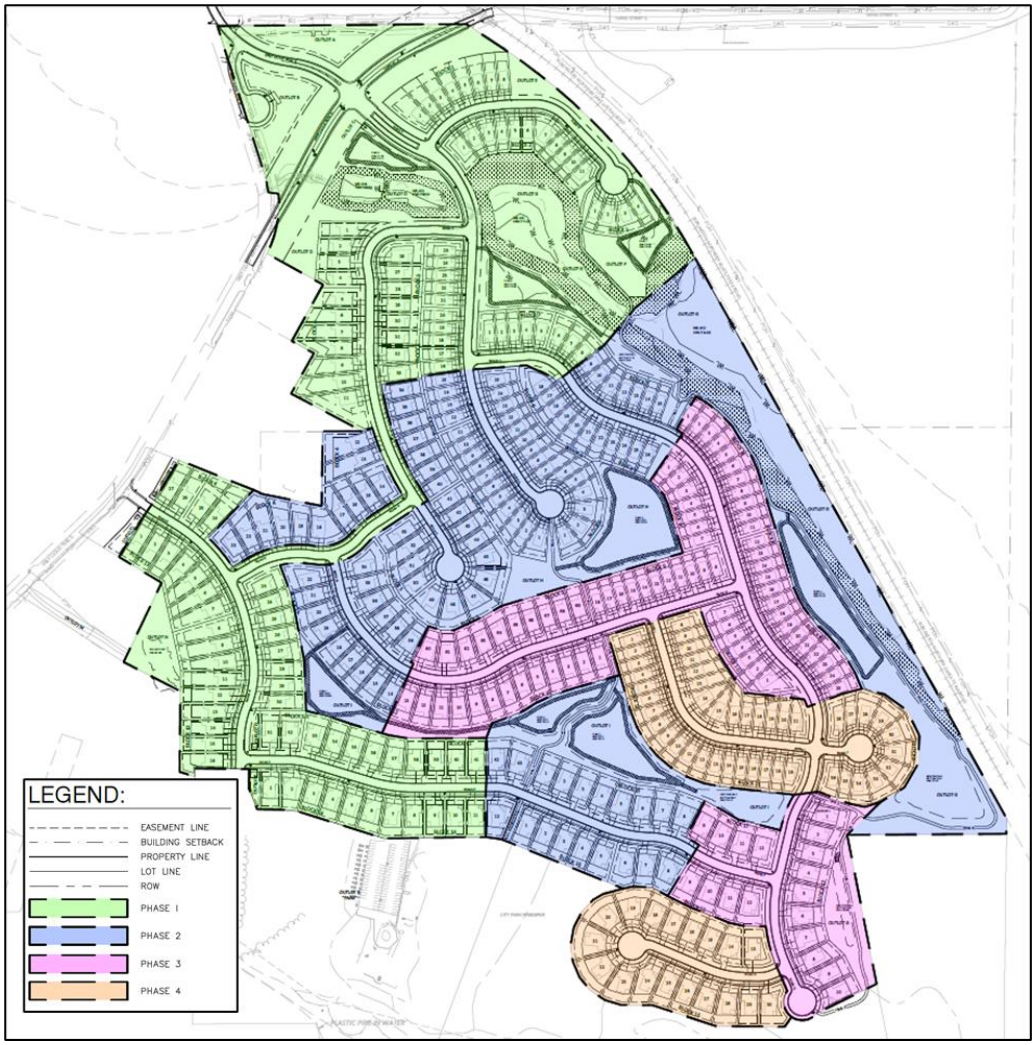
Proposed 52.5-foot Lot Product – M/I Homes Villas

Proposed 52.5-foot Lot Product – M/I Homes Smart Series Home

Proposed Potential 65-foot Lot Product

Phasing

The Developer is proposing construction throughout four phases. The area shown in green below indicates the proposed first phase of the development. As a part of the early dedication by the current owner, an access easement was provided to the parkland along the river to ensure consistent public access to the public open space. This easement will be vacated as a part of the first phase of development work and an alternative/permanent access will be provided. The Developer will be required to work with the City to ensure the City-owned parkland and access to the Mississippi River are provided at all practical times during development construction.



Proposed Phasing Plan

Area Charges and Development Fees
Area charges and related development fees for this project will be based on the acreages shown on the final plat. These fees and charges will be accurately adjusted based on the final plat layout and be provided in the development agreement. All fees and charges will be memorialized within the development agreement. Payment to the City will be required at the time the development agreement is fully executed by the City and Developer.

Homeowners Association
Multiple homeowner's associations (HOA) will be created for the Mississippi Landing development. The Developer has indicated there will be a master HOA with three sub-associations, one sub-association for each of the three distinct neighborhoods. Each sub-association will be responsible and have standards pertaining to the respective neighborhoods, while the master HOA will be responsible for various items throughout the development. Furthermore, the Developer has indicated that the HOA sub-association for the 40-foot-lot neighborhood will be responsible for the maintenance of the lawn and snow removal for each lot.

Department Review
The proposed project was reviewed by the City's Technical Review Committee at their December 10, 2023, meeting. No additional comments or concerns were brought forth at the review meeting.

Public Hearing Notices
Public hearing notices were mailed to 32 property owners who are within 500 feet of the proposed subdivision, the DNR, and published in the St. Paul Pioneer Press on January 10, 2024.

Recommendation

That the Planning Commission recommend that the City Council approve the Preliminary Plat and Planned Unit Development for a subdivision consisting of 377 single-family lots and 18 outlots to be named Mississippi Landing subject to the following conditions:

<u>General Development</u>

1. The Developer and builders must comply with all city ordinances and policies except as may be modified by agreement of the Developer and City staff.

2. All grading, drainage, erosion control, and utilities must conform to the final plans approved by the City Engineer.

3. The Developer receives appropriate building permits from the City, and permits or approvals from other regulatory agencies including, but not limited to: South Washington Watershed District, Minnesota Department of Health, Minnesota Department of Natural Resources, and Minnesota Pollution Control Agency, and Washington County.

4. The Developer shall incorporate into the final plat the recommendations, requirements, and evaluations noted in the Bolton & Menk memorandum dated January 17, 2024, subject to modifications by the City Engineer.

5. The Preliminary Plat approval shall be valid for two calendar years after approval or at such time a final plat is approved.

6. The Developer shall work with the City to ensure proper documentation of the William Cowan/Okey House, located at 10301 Grey Cloud Trail, prior to any activity or alteration to the structure. If any alterations occur to the structure, an onsite plaque shall be provided and installed by the Developer.

7. The Developer shall be responsible for sealing the well and septic systems serving 10301 Grey Cloud Trail.

8. The Developer shall adhere to any mitigations and commitments as outlined in the EAW.

Platting, Land Dedication, and Easements

9. The final plat and the City's approval of the final plat are subject to additional conditions that will be listed in the City resolution approving the final plat and included in the development agreement.

10. The Developer must enter into an agreement with the City of Cottage Grove for the completion of the improvements required by City ordinances. Once the development agreement is completely executed and all cash deposits and payments are paid to the City, the City will release the final plat to the Developer for recording at the Washington County Recorder's Office.

11. A final plat must be recorded with the Washington County Recorder's Office before any building permit can be issued.

12. Outlots A, B, D, G, H, I, Q, and R shall be deeded to the City for utility, stormwater, wetland, and trail purposes.

13. Outlot R and shall be deeded to the City as park dedication prior to the issuance of a building permit.

14. Common mailboxes meeting the approval of the local postmaster are required.

15. Right-of-way shall be platted within Outlot M adjacent to Grey Cloud Trail. Outlot M shall be owned and maintained by the HOA or deeded to adjacent property owners.

16. Outlot F, planned as private park, shall be owned and maintained by the HOA. Vegetation shall be maintained meeting the City's standards. Maintenance standards shall be outlined in the final plat and development agreement.

Construction and Grading

17. Developer must apply for and obtain a grading permit from the City prior to beginning any work on the subject site. Grading, Drainage, and Erosion Control plans must be approved by the City Engineer, other necessary permits (i.e. NPDES permit) must be obtained, and a preconstruction meeting must be held prior to issuance of a grading permit.

18. Prior to Council review of the final plat, the Developer must submit for staff review and approval a final construction management plan that includes erosion control measures,

project phasing for grading work, areas designated for preservation, a rock construction entrance, and construction-related vehicle parking. All emergency overflow swales must be identified on the grading and erosion control plan.

19. Access to the public park must be maintained throughout the course of the development. Developer must coordinate with City staff to provide a temporary parking area and safe access route throughout the project.

20. Upon completing site grading, an electronic PDF and CAD file of the "As-Built" survey must be submitted to the City Engineer.

21. No tree clearing shall be conducted after April 1 or before November 1.

22. The Developer shall be responsible for coordinating clean-up of the park land adjacent to the park access road.

Lot Performance Standards

23. The architectural standards of the development shall be consistent with the following:

Mississippi Landing single-family homes (40-foot and 52.5-foot lot width minimum):

a. The minimum finished floor area for single-family dwellings is 1,000 square feet.
b. The minimum attached garage floor area for single-family dwellings shall be 240 square feet.
c. Architectural design is required on all four sides of the principal structure.
d. Architectural materials must be varying on the front façade of the principal structure (shakes, board and batten, brick or stone, accent siding, shutters, window boxes, etc.).

Mississippi Landing single-family homes (65-foot lot width minimum):

a. The minimum finished floor area for single-family dwellings is 1,200 square feet.
b. The minimum attached garage floor area for single-family dwellings shall be 440 square feet.
c. Architectural design is required on all four sides of the principal structure.
d. Architectural materials must be varying on the front façade of the principal structure (shakes, board and batten, brick or stone, accent siding, shutters, window boxes, etc.).

24. Principal structure elevation styles shall not be the same on lots that are adjacent to, across from, or diagonal to the subject lot.

25. The Developer shall submit a final plan detailing the transition between adjacent differing minimum lot widths to ensure a sound transition.

26. If fencing is installed within the project area, it must be constructed of the same design, materials, and color throughout the development. This applies to fencing installed on Lots 12-16, Block 13; Lots 1-12, Block 14; Lots 1-6 and 19-30, Block 16; and Lot 10, Block 17.

27. The HOA shall be required to maintain the landscaped median within "Road A". Conditions of maintenance shall be described in the Development Agreement.

Utilities

28. The Developer is responsible for providing the necessary easements and costs associated with road and utility improvements serving the site. All drainage and utility easements, as recommended by the City Engineer, must be shown on the final plat and dedicated to the City for public purposes.

29. The water utility plan shall conform to the City's water supply and distribution plan.

30. The sanitary sewer utility plan shall conform to the City's sanitary sewer comprehensive plan.

31. All stormwater designs shall meet the intent of the City's Surface Water Management Plan and the SWWD water management plan.

32. The Developer must make all necessary adjustments to the curb stops, gate valves, and metal castings to bring them flush with the topsoil (after grading).

33. The Developer is responsible for construction of a lift station proposed on Outlot B. No permanent or temporary certificates of occupancy shall be issued until the lift station is operational.

Streets

34. The street names for proposed public streets shall align with the County's uniform street naming system and be labeled on the final plat.

35. The City's curb replacement policy must be complied with during home building. A bituminous wedge shall be maintained on the street until 90 percent of the homes are constructed in any phase or in three years.

Landscaping and Irrigation

36. Irrigation systems installed within City right-of-way are solely the responsibility and risk of the Developer, or individual. The City is not responsible or liable for any damage or costs related to installation, damage, or replacement of lawn irrigation systems placed in the boulevard as a result of City use of or future changes in the right of way. The HOA is responsible for the maintenance of the irrigation system within the boulevard area to the back of the curb and within any outlots. An irrigation plan is required to be submitted and approved prior to the issuance of a building permit.

37. All proposed tree locations on the proposed landscape plan shall be reviewed and approved by the City Forester. Deciduous trees should be located a minimum of 5 feet off any utility pipe. Coniferous trees shall be located a minimum of 15 feet off any utility pipe. No trees shall be located within a storm pond high water level or within the pond access

routes. Trees shall not be located so as to interfere with hydrants, street lighting, utilities, and traffic signage.

38. If Outlot A (35.1-acres) is not sold to the DNR, mitigation of inches that are not replaced on the development site (5,978 inches), will be required to be paid by the property owner.

39. The City Forester will mark the location where boulevard trees must be planted and approve the tree species to be planted. The final landscape plan must be reviewed, coordinated, and approved by the City Forester.

40. The Developer is responsible for establishing the final grades, topsoil, and seeding of all the lots, outlots, and boulevards within the subdivision.

41. All lots with a 40-foot lot width minimum are required to have two trees and five shrubs installed.

42. All lots with a 52.5-foot lot width minimum are required to have two trees and ten shrubs installed.

43. All lots with a 65-foot lot width minimum are required to have three trees and ten shrubs installed. Lots adjacent to the City-owned parkland shall be required to have one tree and ten shrubs installed:

    Block 14, Lots 6-12
    Block 16, Lots 1-5, 19-21, 23-27

44. Lots on which existing trees are being preserved, no additional rear yard trees are required on the following lots:

    Block 4, Lots 5-13, 16-17, 19-21, 24-27
    Block 13, Lots 1-16
    Block 14, Lots 1-5, 22, 28-30

45. The HOA will be required to maintain vegetation within all HOA owned outlots including outlots containing monument signage.

46. Outlots to be deeded to the City:

    a. Outlot A
    b. Outlot B
    c. Outlot D
    d. Outlot G
    e. Outlot H
    f. Outlot I
    g. Outlot Q
    h. Outlot R

Surface Water Management

47. The lowest opening ground elevations of all structures shall be a minimum of two feet above the emergency overflow elevation, and three feet above adjacent pond high water levels.

48. All emergency overflow swales must be identified on the grading and erosion control plan. Each fall while home building is occurring, emergency overflow elevations shall be surveyed to ensure the emergency overflows are properly graded and maintained.

49. All pond access routes shall be sodded. Lots adjacent to pond access routes including trail corridors are required to maintain to the center of these accesses or up to the edge of the trail.

    Block 2, Lot 11
    Block 3, Lots 1, 4
    Block 5, Lots 1, 69
    Block 6, Lots 1, 26
    Block 7, Lot 15
    Block 8, Lot 36
    Block 9, Lots 1, 18
    Block 11, Lots 1-3
    Block 12, Lots 1, 18-19, 43
    Block 14, Lot 12
    Block 15, Lot 1
    Block 16, Lot 1
    Block 17, Lot 1

Onsite Infrastructure Improvements

50. A street lighting plan must be submitted by the Developer and approved by the City Engineer.

51. The Developer must place iron monuments at all lot and block corners and at all other angle points on property lines. Iron monuments must be placed after all site and right-of-way grading has been completed in order to preserve the lot markers for future property owners.

52. The Developer is responsible for the cost and installation of public land boundary markers at the corners of private properties abutting Outlots as specified in the development review memo from Bolton & Menk. The actual number of park boundary markers will be determined once the final boundary configuration for the Outlots is determined as part of the final plat process.

53. The Developer shall contact the electric, telephone, gas, and cable companies that are authorized to provide service to the property to ascertain whether any of those utility providers intend to install underground lines within the development.

54. The Developer is responsible for all street maintenance; upkeep and repair of curbs, boulevards, and sod; and street sweeping until the project is complete. All streets must be maintained free of debris and soil until the subdivision is completed. The Developer hereby agrees to indemnify and hold the City harmless from any and all claims for damages of any nature whatsoever arising out of Developer's acts or omissions in performing the obligations imposed upon Developer by this paragraph.

55. The Developer will provide to the City copies of test results, suppliers, subcontractors, etc., relating to the work to be performed by the Developer. The Developer agrees to furnish to the City a list of contractors being considered for retention by the developer for the performance of the work described in the development agreement.

56. The Developer is responsible for the control of grass and weeds in excess of eight inches on vacant lots or boulevards within their development. Failure to control grass and weeds will be considered a Developer's default and the City may, at its option, perform the work and the Developer shall promptly reimburse the City for any expense incurred by the City.

57. The Developer is responsible to require each builder within the development to provide a rock entrance for every house that is to be constructed in the development. This entrance is required to be installed upon initial construction of the home, but a paved driveway must be completed before the City will issue a certificate of occupancy for that property. See City Standard Plate ERO-12 for construction requirements. The water service line and shut-off valve shall not be located in the driveway.

58. The Developer will be required to conduct all major activities to construct the public improvements during the following hours of operation:

Monday through Friday	7:00 A.M. to 7:00 P.M.
Saturday	9:00 A.M. to 5:00 P.M.
Sunday	Not Allowed

This does not apply to activities that are required on a 24-hour basis such as dewatering or bi-pass pumping, etc. Any deviations from the above hours are subject to approval of the City Engineer.

59. The Developer shall weekly, or more often if required by the City Engineer, clear from the public streets and property any soil, earth, or debris resulting from construction work by the Developer or its agents or assigns. All debris, including brush, vegetation, trees, and demolition materials, shall be properly disposed of off-site; burying construction debris, trees, and other vegetation is prohibited. Burning of trees and structures is prohibited, except for fire training only.

60. The Developer grants the City, its agents, employees, officers, and contractors' permission to enter the site to perform all necessary work and/or inspections during grading and the installation of public improvements by the Developer.

61. Upon completion of the work, the Developer shall provide the City with a full set of as-built plans for City records and transmitted to the City in a DWG AutoCAD format and pdf format.

Developer must also furnish the City with a pdf format of the final plat and four prints of the recorded plat. If the Developer does not provide as-builts, the City will produce them at the developer's expense.

62. The Developer is responsible for completing the final grade on all lots and ensuring all boulevards and yards have a minimum of four inches of organic topsoil or black dirt on them. Placement of organic topsoil or black dirt, sod, and shrubs must not be transferred to homeowners.

63. Adequate dumpsters must be on site during construction of streets, utilities, and houses. When the dumpsters are full, they must be emptied immediately or replaced with an empty dumpster. The Developer is responsible to require each builder to provide an on-site dumpster to contain all construction debris, thereby preventing it from being blown off-site. It is the responsibility of the Developer to ensure no debris blows on or off site.

64. Adequate portable toilets must be on-site at all times during construction of utilities, roadways, and houses. At no time shall any house under construction be more than 250 feet away from any portable toilet. Toilets must be regularly emptied.

65. After the site is rough graded, but before any utility construction commences or building permits are issued, the erosion control plan shall be implemented by the Developer and inspected and approved by the City. The City may impose additional erosion control requirements if it is determined that the methods implemented are insufficient to properly control erosion.

66. The Developer is responsible for erosion control inspection fees at the current rates. If the Developer does not reimburse the City for the costs the City incurred for such work within thirty (30) days, the City may draw down the letter of credit to pay such costs.

67. All areas disturbed by the excavation and back-filling operations shall be fertilized, mulched, and disc anchored as necessary for seed retention. Time is of the essence in controlling erosion. If the Developer does not comply with the erosion control plan and schedule, or supplementary instructions received from the City, or in an emergency determined at the sole discretion of the City, the City may take such action as it deems appropriate to control erosion immediately. The City will notify the Developer in advance of any proposed action, but failure of the City to do so will not affect the Developer's and the City's rights or obligations. If the Developer does not reimburse the City for any costs of the City incurred for such work within thirty (30) days, the City may draw down the letter of credit to pay such costs.

68. Dust control measures must be in place to prevent dust and erosion, including, but not limited to daily watering, silt fences, and seeding. The City Engineer may impose reasonable measures to reduce dust at the site.

69. The Developer shall comply with the 1991 Wetlands Conservation Act, as amended.

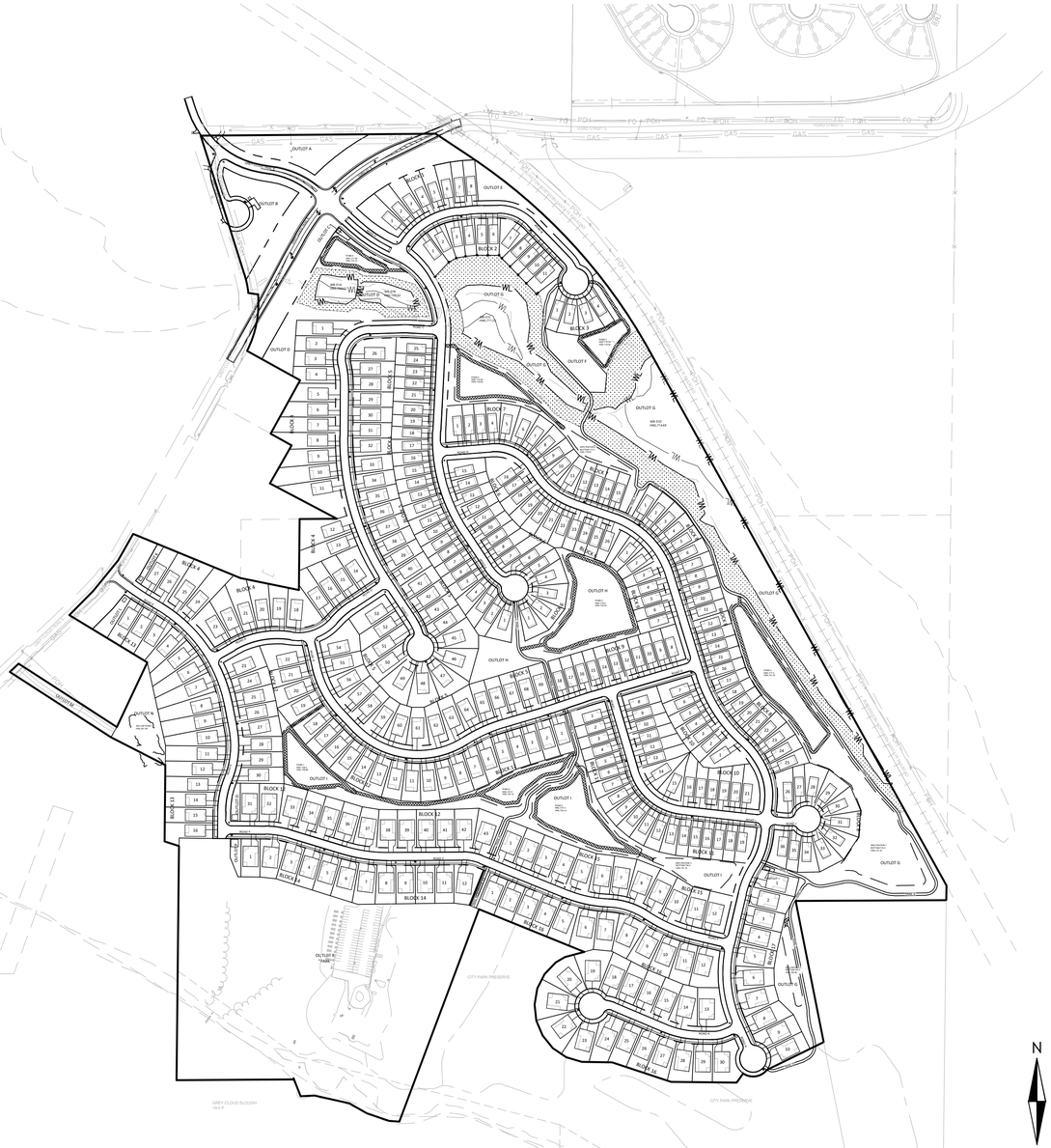
70. Temporary parking during construction shall be permitted on only one side of the street. No construction parking is permitted on 103rd Street or Grey Cloud Trail.

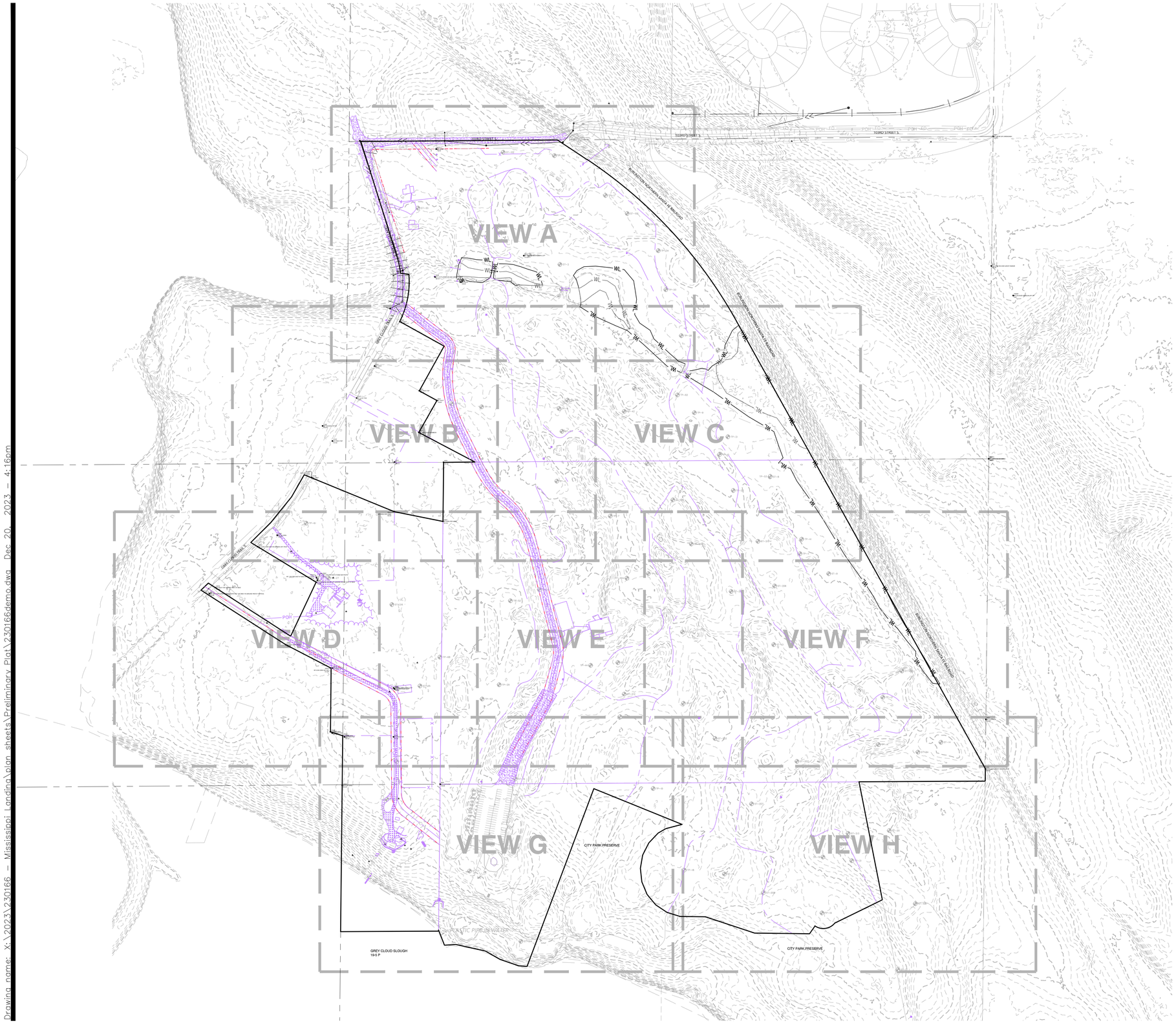
Prepared by:
Emily Schmitz
Community Development Director

Attachments:
- Mississippi Landing Preliminary Plat
- Mississippi Landing Preliminary Civil Drawings 12/20/2023
- Engineering Review Memorandum 01/17/2024
- EAW Notice of Decision
- Natural Heritage Review Letter 01/16/2024
- Habitat Assessment for Rusty Patched Bumble Bee 03/2/2022
- Phase 1 Archeological Study 09/2/2022
- Unanticipated Discovery Plan 05/23/2022
- Rare Plant Survey Report 04/14/2022
- Rachel Development Narrative

MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA





NOTES:

1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2. CONTRACTOR TO NOTIFY GOPHER STATE ONE CALL, 800-252-1166, 48 HOURS PRIOR TO EXCAVATION WORK. CONTRACTOR SHALL HAVE PRIVATE UTILITIES LOCATED
3. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES, SUCH AS EXISTING GUTTER GRADES AT THE PROPOSED DRIVEWAYS, PRIOR TO THE START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
4. CONTRACTOR SHALL PROPERLY DISPOSE OF ALL MATERIAL REMOVALS. CONTRACTOR TO SALVAGE ALL MATERIALS POSSIBLE AND COORDINATE WITH OWNER ON FINAL USE.
5. PRIOR TO EARTH DISTURBANCE, INSTALL EROSION AND SEDIMENT CONTROL AS NECESSARY TO PREVENT SEDIMENT TRANSPORT OFFSITE DURING CONSTRUCTION WORK. INSTALL SILT FENCE AND INLET PROTECTION TO AT DISTURBANCE LIMITS.
6. SEE TREE PRESERVATION SHEETS FOR TREE REMOVALS AND INDIVIDUAL TREE LOCATIONS.

LEGEND:

- BUILDING AND BITUMINOUS TO BE REMOVED
- EASEMENT TO BE VACATED
- R/W TO BE VACATED
- PROPOSED CURB REMOVAL
- PROPOSED SAWCUT/WORK LIMITS
- PROPOSED PAVEMENT REMOVAL
- PROPOSED GRAVEL REMOVAL
- EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER
- EXISTING CART PATH REMOVAL
- EXISTING STORM SEWER REMOVAL
- EXISTING CATCH BASIN REMOVAL
- EXISTING WELL REMOVAL & CAP
- EXISTING TREE LINE REMOVAL
- WL — WETLAND
- WL — WETLAND IMPACT
- SOIL BORING/TEST PIT

N

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SCALE IN FEET

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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
EXISTING CONDITIONS/DEMOLITION PLAN OVERVIEW NORTH

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

2

SHEET 2 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:16pm

CSGPS BAILEY

103RD STREET S.

103RD STRE

REMOVE CURB AND GUTTER

REMOVE BITUMINOUS

REMOVE AND SALVAGE EXISTING SIGN

VACATE EXISTING EASEMENT

(EX 17) 28' DRIVEWAY EASEMENT; DOC 245995

VACATE EXISTING RIGHT-OF-WAY

REMOVE EXISTING FENCE

REMOVE BITUMINOUS

OVERHEAD POWER TO BE REMOVED BY UTILITY COMPANY. CONTRACTOR/DEVELOPER TO COORDINATE

BURLINGTON NORTHERN SANTA FE RAILROAD

CAP/ABANDON WELL AND SEPTIC. IF PRESENT

REMOVE BUILDING

REMOVE AND SALVAGE EXISTING SIGN

OVERHEAD POWER TO BE REMOVED BY UTILITY COMPANY. CONTRACTOR/DEVELOPER TO COORDINATE

REMOVE GRAVEL

REMOVE EXISTING CART PATHS

REMOVE EXISTING CART PATHS

REMOVE BUILDING

GREY CLOUD TRAIL S.

REMOVE AND SALVAGE EXISTING SIGN

REMOVE BITUMINOUS

REMOVE WATER PUMP AND PUMP HOUSE

REMOVE 27" FLARED END SECTION

REMOVE CURB AND GUTTER

REMOVE 8" CMP AND FLARED END SECTIONS

WETLAND IMPACT AREA. REFER TO WETLAND MANAGEMENT PLAN

REMOVE EXISTING GUARD RAIL

REMOVE AND SALVAGE EXISTING SIGN

REMOVE 36" CMP AND FLARED END SECTIONS

REMOVE 24" CMP AND FLARED END SECTIONS

REMOVE EXISTING SIGN

VACATE EXISTING EASEMENT

REMOVE AND SALVAGE EXISTING SIGN

REMOVE CURB AND GUTTER

REMOVE BITUMINOUS

REMOVE EXISTING CART PATHS

REMOVE WATER PUMPS

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

EXISTING CONDITIONS/DEMOLITION PLAN VIEW A

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

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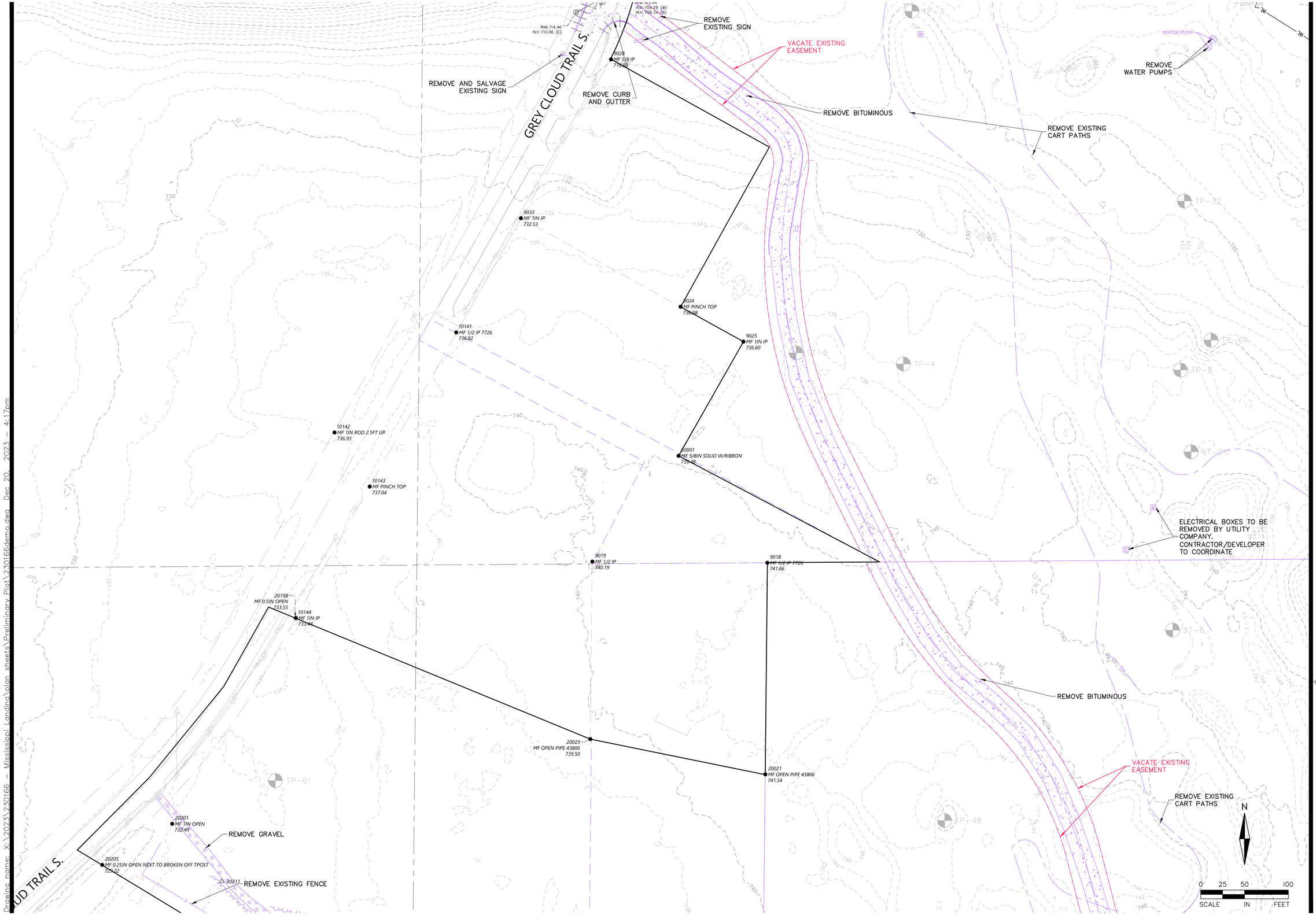

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

EXISTING CONDITIONS/DEMOLITION PLAN VIEW B

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: LRJ

PROJECT NO: 223-0166

4

SHEET 4 of 110

REMOVE WATER PUMPS

REMOVE EXISTING CART PATHS

WETLAND IMPACT AREA. REFER TO WETLAND MANAGEMENT PLAN

REMOVE 30" CMP AND FLARED END SECTIONS

ON NORTHERN SANTA FE RAILROAD

REMOVE EXISTING CART PATHS

ELECTRICAL BOXES TO BE REMOVED BY UTILITY COMPANY. CONTRACTOR/DEVELOPER TO COORDINATE

REMOVE BITUMINOUS

VACATE EXISTING EASEMENT

REMOVE EXISTING CART PATHS

N

0 25 50 100

SCALE IN FEET

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

EXISTING CONDITIONS/DEMOLITION PLAN VIEW C

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

MARK R. RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

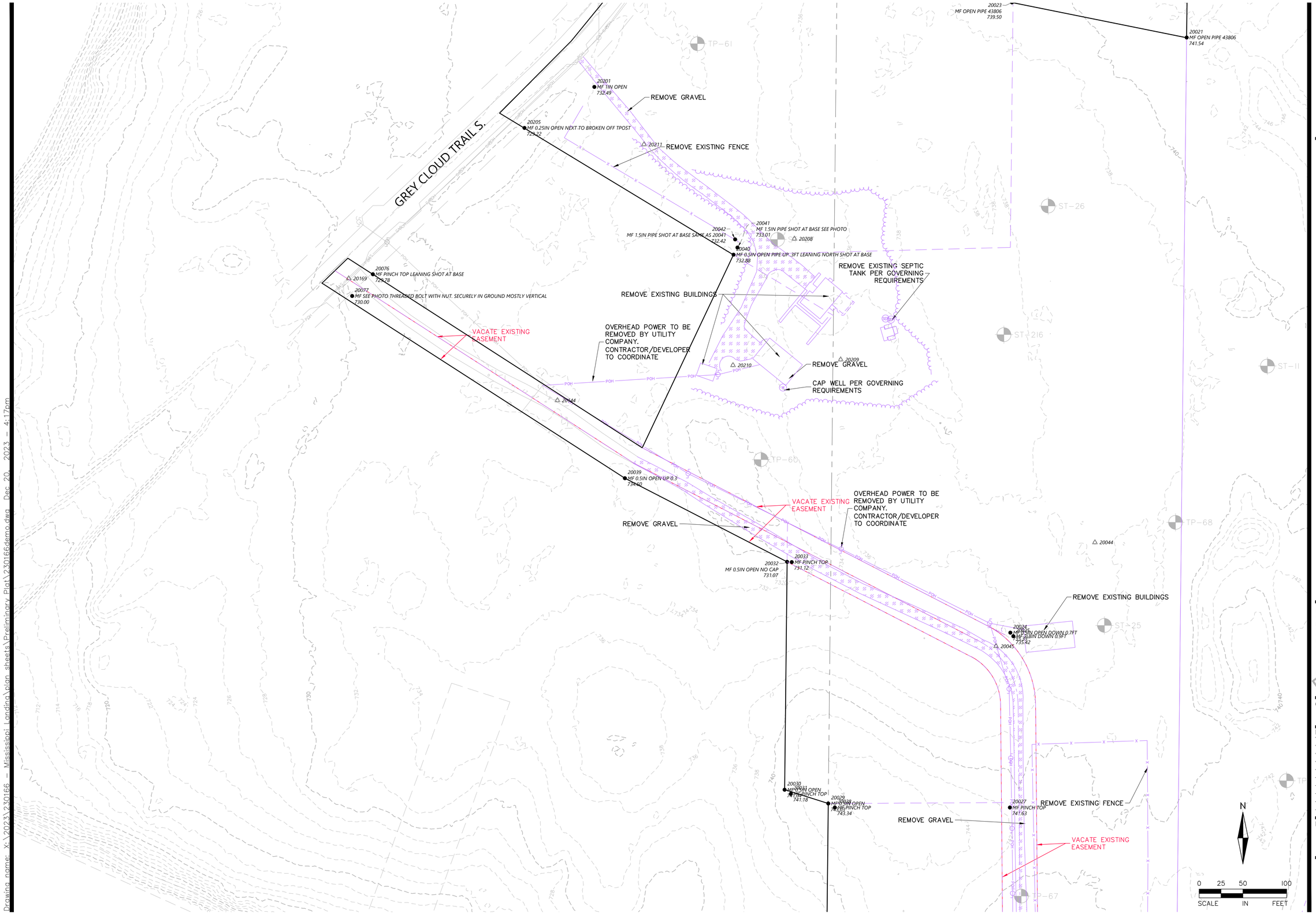
DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

5

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm



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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

EXISTING CONDITIONS/DEMOLITION PLAN VIEW D

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MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

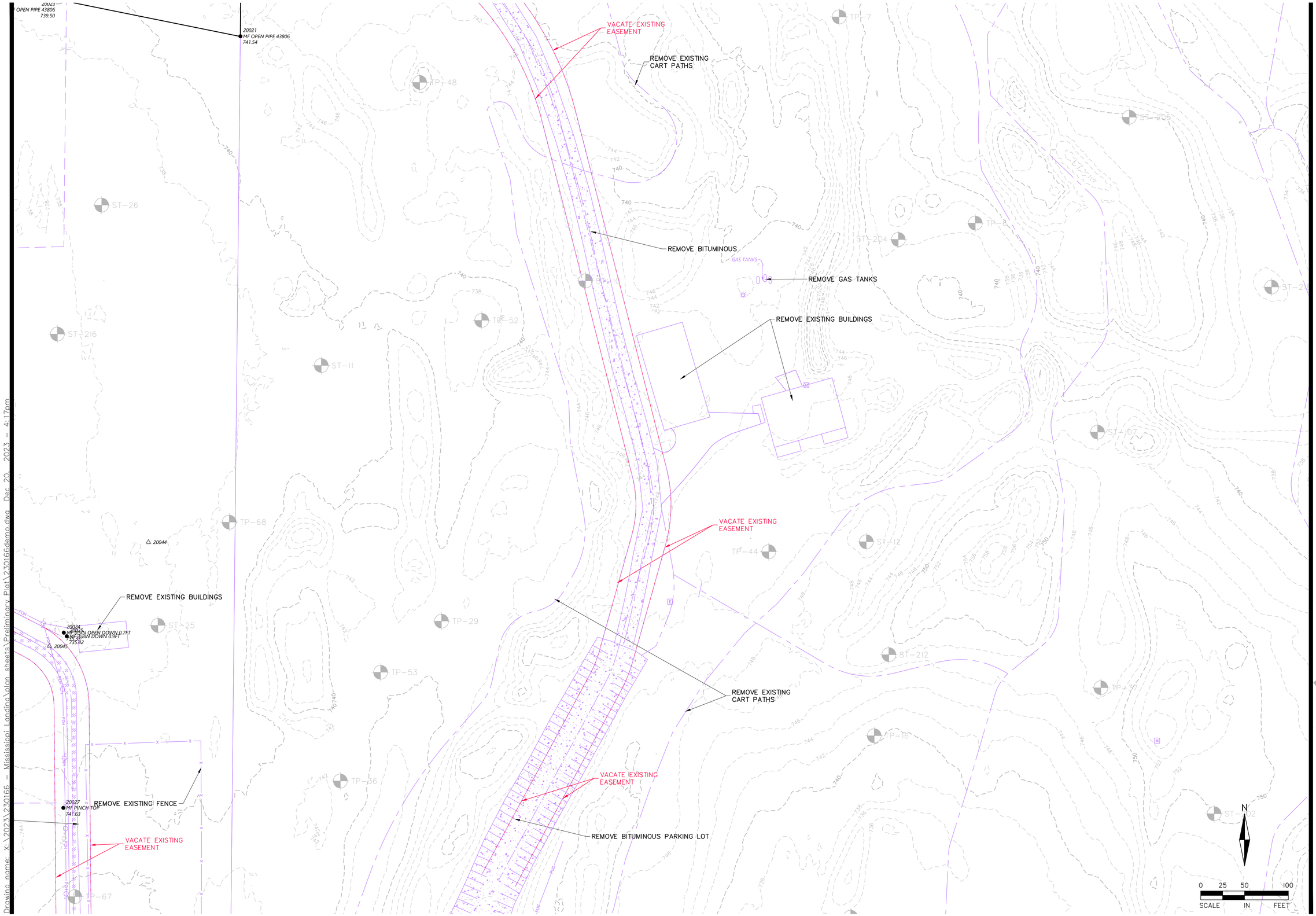
PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

6

SHEET 6 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm



Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm

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BY DATE

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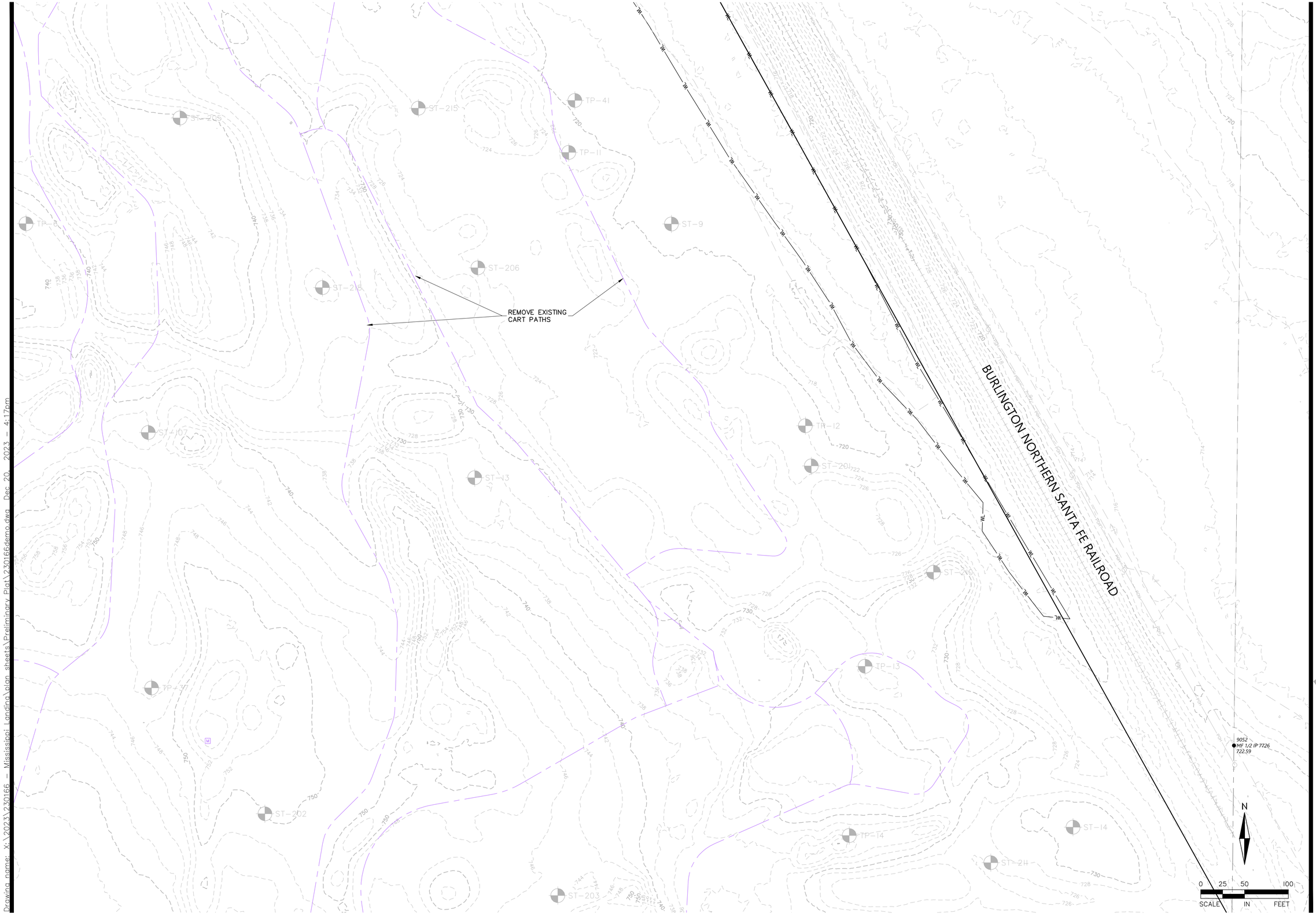
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

7



Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm

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PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: LRJ

PROJECT NO: 223-0166

8

SHEET 8 of 110

REMOVE GRAVEL

REMOVE EXISTING FENCE

VACATE EXISTING EASEMENT

OVERHEAD POWER TO BE REMOVED BY UTILITY COMPANY, CONTRACTOR/DEVELOPER TO COORDINATE

VACATE EXISTING EASEMENT

REMOVE BITUMINOUS PARKING LOT

VACATE EXISTING EASEMENT

REMOVE GRAVEL
REMOVE EXISTING BUILDINGS

REMOVE EXISTING RETAINING WALL

CAP WELL PER GOVERNING REQUIREMENTS

REMOVE EXISTING SEPTIC TANK PER GOVERNING REQUIREMENTS

REMOVE EXISTING STAIRS

REMOVE EXISTING DOCK

REMOVE EXISTING STAIRS

REMOVE EXISTING RETAINING WALL

CITY PARK PRESERVE

GREY CLOUD SLOUGH
19-5 P

N

0 25 50 100
SCALE IN FEET

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EXISTING CONDITIONS/DEMOLITION PLAN VIEW G

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

9

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166demo.dwg Dec 20, 2023 - 4:17pm

REMOVE EXISTING CART PATHS

CITY PARK PRESERVE

9052
MF 1/2 IP 7726
722.59

9050
MF MN DNR SURVEY MARKER 5/8 RB
726.55

ST-202 ST-203 TP-14 ST-14 ST-2H ST-207 ST-213 ST-20 ST-19 TP-21 TP-18 ST-18 ST-208 TP-19 ST-108 ST-21

N

0 25 50 100
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN
EXISTING CONDITIONS/DEMOLITION PLAN VIEW H

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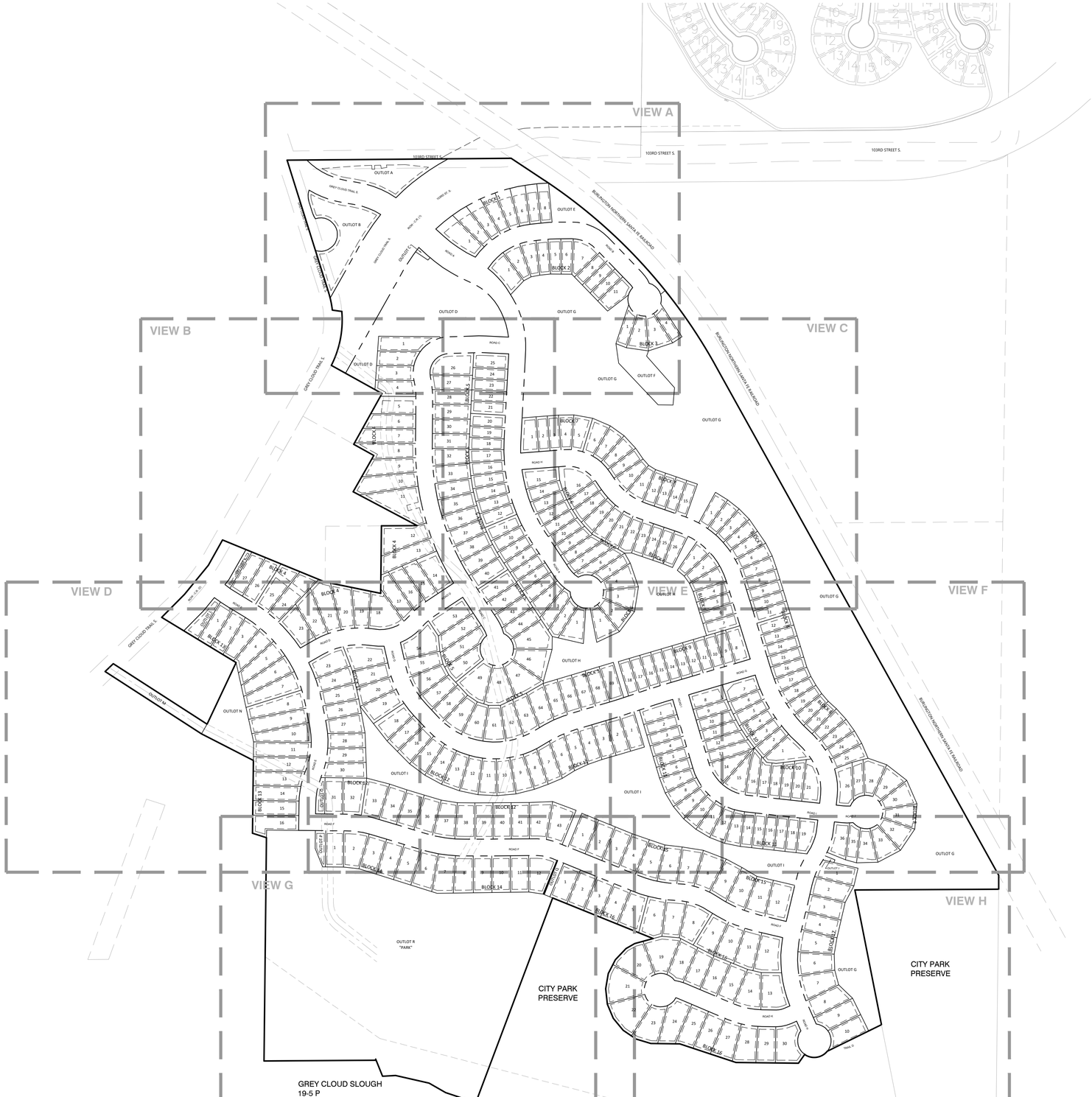
BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

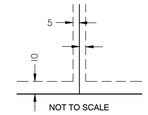
10



LEGEND:

- PROPERTY LINE
- LOT LINE
- R.O.W
- EASEMENT LINE
- FOUND IRON MONUMENT

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



Being 5 feet in width and adjoining lot lines and 10 feet in width and adjoining right of way lines, unless otherwise indicated on the plat.

NOTE:
DRAINAGE AND UTILITY EASEMENT TO COVER ALL OF OUTLOTS X

N

0 100 200 400
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN
PRELIMINARY PLAT OVERVIEW NORTH

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Date License No.

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QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

11

SHEET 11 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:17pm

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N

0 25 50 100
SCALE IN FEET

103RD STREET S.

MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

PRELIMINARY PLAT VIEW A

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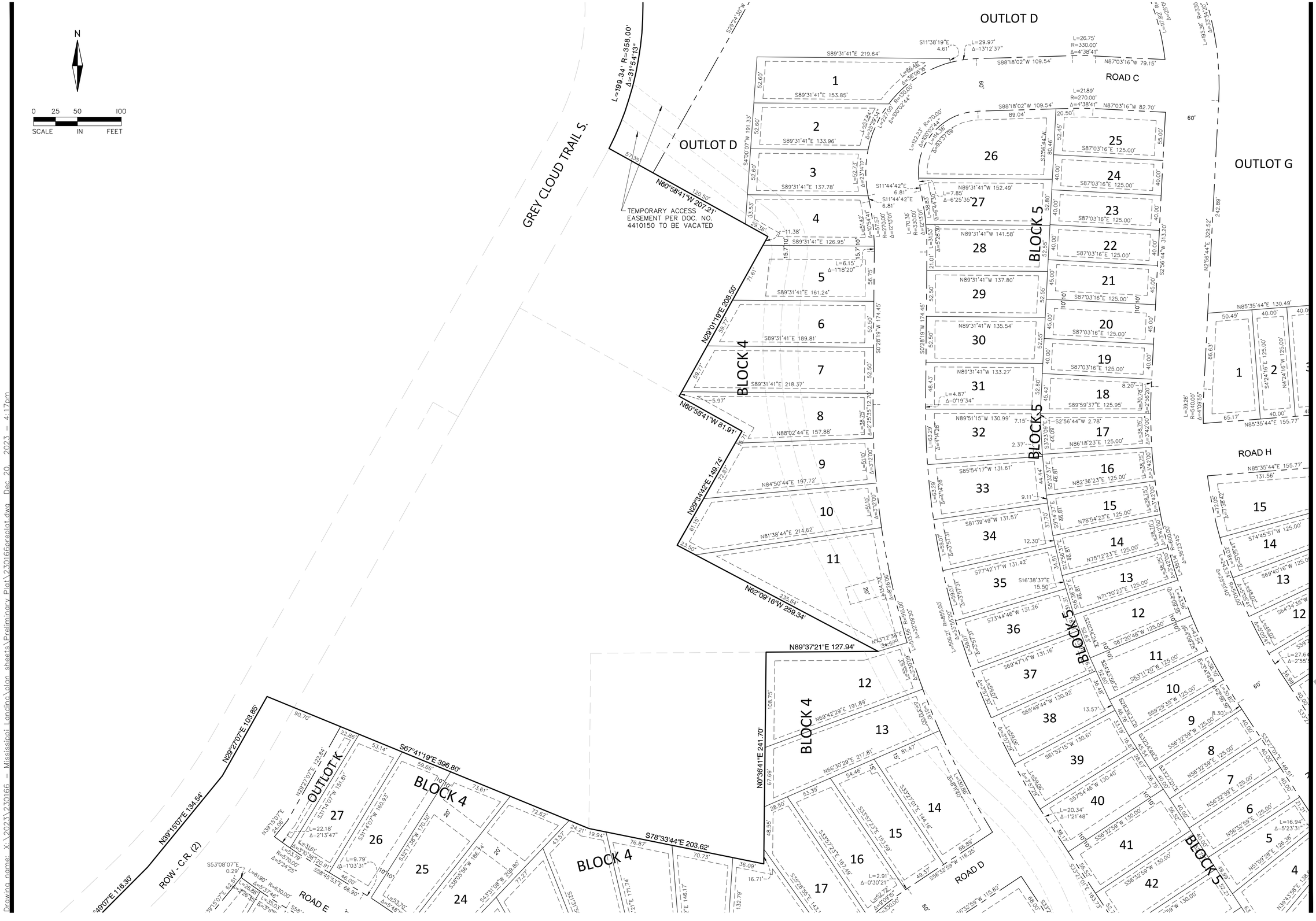
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

12

SHEET 12 of 110

N89°32'45"E 803.15'
103RD STREET S.
70.23'
507.44'
R/W AS TRAVELED TO BE VACATED
225.47'
S56°24'47"E 144.85'
OUTLOT A
GREY CLOUD TRAIL S.
80'
103RD ST. S.
BURLINGTON NORTHERN SANTA FE RAILROAD
OUTLOT B
ROW - C.R. (1)
OUTLOT E
DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT E
BLOCK 1
GREY CLOUD TRAIL S.
60' ROW
N17°21'51"W 499.09'
R/W AS TRAVELED TO BE VACATED
S29°24'10"W 216.80'
GREY CLOUD TRAIL S.
180'
OUTLOT C
ROAD A
ROAD B
BLOCK 2
N81°57'15"W 33.97'
L=199.34' R=358.00' Δ=31°54'13"
S29°24'10"W 425.21'
DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT D
OUTLOT D
DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT G
OUTLOT G
L=906.90' R=1900.00' Δ=27°20'53"
N43°59'02"W 176.28'
ROAD C
BLOCK 5
BLOCK 3
OUTLOT F
N60°58'41"W 207.21'
TEMPORARY ACCESS EASEMENT PER DOC. NO. 4410150 TO BE VACATED
120.50'
57.35'
N43°32'58"W 205.60'
N18°12'51"W 147.40'
S69°12'15"E 40.04'
S81°44'42"E 80.26'
N71°28'16"E 91.11'
S19°54'58"W 19.75'
S41°19'39"E 151.26'
N18°12'51"W 125.39'
S54°16'24"E 125.00'
S32°47'05"E 140.26'
N57°13'35"E 45.70'
S11°38'19"E 4.61'
S89°31'41"E 219.64'
S88°18'02"W 109.54'
N87°03'16"W 79.15'
S89°31'41"E 153.85'
S89°31'41"E 133.96'
S89°31'41"E 137.78'
S40°00'07"W 191.33'
S45°00'07"E 159.97'
S37°32'19"E 151.49'
S32°54'51"E 145.37'
S27°16'43"E 141.98'
S21°58'24"E 140.72'
S10°43'E 141.62'
S01°07'E 140.98'
S00°36'E 140.66'
S83°49'17"W 38.89'
S87°03'16"E 125.00'
S89°32'45"W 53.12'
S84°05'48"W 38.85'
S79°43'13"W 32.29'
S60°56'49"W 29.13'
S89°35'36"E 75.91'
S43°59'02"E 183.90'
S52°23'57"W 94.81'
N46°00'58"E 125.00'
S46°00'58"W 125.00'
N43°59'02"W 176.28'
N51°16'19"E 21.36'
S32°47'05"E 125.00'
S54°16'24"E 125.00'
N71°28'16"E 91.11'
S19°54'58"W 19.75'
S41°19'39"E 151.26'
N43°32'58"W 205.60'
S81°44'42"E 80.26'
S69°12'15"E 40.04'
N18°12'51"W 147.40'
S18°12'51"W 125.39'
S54°16'24"E 125.00'
S32°47'05"E 140.26'
N57°13'35"E 45.70'
S11°44'42"E 6.81'
N89°31'41"W 152.49'
S87°03'16"E 125.00'
S11°44'42"E 6.81'
N89°31'41"W 141.58'
S87°03'16"E 125.00'
S87°03'16"E 125.00'
S87°03'16"E 125.00


N
0 25 50 100
SCALE IN FEET
GREY CLOUD TRAIL S.
OUTLOT D
OUTLOT D
ROAD C
OUTLOT G
ROAD H
ROAD D
ROAD E
BLOCK 4
BLOCK 5
L=199.34' R=358.00' Δ=31°54'19"
S20°24'30"W
S89°31'41"E 219.64'
S11°38'19"E 4.61'
L=29.97' Δ=13°12'37"
S88°18'02"W 109.54'
L=26.75' R=330.00' Δ=4°38'41"
N87°03'16"W 79.15'
L=17.82' R=25.00'
S89°31'41"E 153.85'
S89°31'41"E 133.96'
S89°31'41"E 137.78'
S89°31'41"E 126.95'
S89°31'41"E 161.24'
S89°31'41"E 189.81'
S89°31'41"E 218.37'
S4°00'07"W 191.33'
S4°00'07"W 151.61'
N60°58'41"W 207.21'
TEMPORARY ACCESS EASEMENT PER DOC. NO. 4410150 TO BE VACATED
N60°58'41"W 81.91'
N29°34'42"E 149.74'
N62°09'16"W 259.34'
N29°01'19"E 208.50'
S0°28'19"W 174.45'
S11°44'42"E 6.81'
S11°44'42"E 6.81'
L=7.85' Δ=6°25'35"
N89°31'41"W 152.49'
N89°31'41"W 141.58'
N89°31'41"W 137.80'
N89°31'41"W 135.54'
N89°31'41"W 133.27'
N89°51'15"W 130.99'
S85°54'17"W 131.61'
S81°39'49"W 131.57'
S77°42'17"W 131.42'
S73°44'46"W 131.26'
S69°47'14"W 131.16'
S65°49'44"W 130.92'
S61°52'15"W 130.61'
S57°54'46"W 130.40'
S56°32'59"W 130.00'
S56°32'59"W 130.00'
S56°32'59"W 130.00'
S56°32'59"W 115.82'
L=122.23' R=70.00' Δ=100°02'44" L=94.36' Δ=33°37'09"
S52°56'44"W 80.46'
S52°56'44"W 313.20'
S52°56'44"W 2.78'
N86°18'23"E 125.00'
N82°36'23"E 125.00'
N78°54'23"E 125.00'
N75°12'23"E 125.00'
N71°30'23"E 125.00'
N67°20'48"W 125.00'
S63°11'20"W 125.00'
S59°29'35"W 125.00'
S55°47'50"W 125.00'
S52°06'05"W 125.00'
S48°24'20"W 125.00'
S44°42'35"W 125.00'
S41°00'50"W 125.00'
S37°19'05"W 125.00'
S33°37'20"W 125.00'
S29°55'35"W 125.00'
S26°13'50"W 125.00'
S22°32'05"W 125.00'
S18°50'20"W 125.00'
S15°08'35"W 125.00'
S11°26'50"W 125.00'
S7°45'05"W 125.00'
S4°03'20"W 125.00'
S0°21'35"E 125.00'
S3°40'10"E 125.00'
S7°21'55"E 125.00'
S11°03'40"E 125.00'
S14°45'25"E 125.00'
S18°27'10"E 125.00'
S22°08'55"E 125.00'
S25°50'40"E 125.00'
S29°32'25"E 125.00'
S33°14'10"E 125.00'
S36°55'55"E 125.00'
S40°37'40"E 125.00'
S44°19'25"E 125.00'
S48°01'10"E 125.00'
S51°42'55"E 125.00'
S55°24'40"E 125.00'
S59°06'25"E 125.00'
S62°48'10"E 125.00'
S66°29'55"E 125.00'
S70°11'40"E 125.00'
S73°53'25"E 125.00'
S77°35'10"E 125.00'
S81°16'55"E 125.00'
S84°58'40"E 125.00'
S88°40'25"E 125.00'
N87°37'50"E 125.00'
N83°56'05"E 125.00'
N80°14'20"E 125.00'
N76°32'35"E 125.00'
N72°50'50"E 125.00'
N69°09'05"E 125.00'
N65°27'20"E 125.00'
N61°45'35"E 125.00'
N58°03'50"E 125.00'
N54°22'05"E 125.00'
N50°40'20"E 125.00'
N46°58'35"E 125.00'
N43°16'50"E 125.00'
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N35°53'20"E 125.00'
N32°11'35"E 125.00'
N28°29'50"E 125.00'
N24°48'05"E 125.00'
N21°06'20"E 125.00'
N17°24'35"E 125.00'
N13°42'50"E 125.00'
N10°01'05"E 125.00'
N6°19'20"E 125.00'
N2°37'35"E 125.00'
N1°04'10"W 125.00'
N4°45'55"W 125.00'
N8°27'40"W 125.00'
N12°09'25"W 125.00'
N15°51'10"W 125.00'
N19°32'55"W 125.00'
N23°14'40"W 125.00'
N26°56'25"W 125.00'
N30°38'10"W 125.00'
N34°19'55"W 125.00'
N38°01'40"W 125.00'
N41°43'25"W 125.00'
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N60°12'10"W 125.00'
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N74°59'10"W 125.00'
N78°40'55"W 125.00'
N82°22'40"W 125.00'
N86°04'25"W 125.00'
S89°46'10"W 125.00'
S86°07'55"W 125.00'
S82°29'40"W 125.00'
S78°51'25"W 125.00'
S75°13'10"W 125.00'
S71°34'55"W 125.00'
S67°56'40"W 125.00'
S64°18'25"W 125.00'
S60°40'10"W 125.00'
S57°01'55"W 125.00'
S53°23'40"W 125.00'
S49°45'25"W 125.00'
S46°07'10"W 125.00'
S42°28'55"W 125.00'
S38°50'40"W 125.00'
S35°12'25"W 125.00'
S31°34'10"W 125.00'
S27°55'55"W 125.00'
S24°17'40"W 125.00'
S20°39'25"W 125.00'
S17°01'10"W 125.00'
S13°22'55"W 125.00'
S9°44'40"W 125.00'
S6°06'25"W 125.00'
S2°28'10"W 125.00'
S1°09'45"E 125.00'
S4°48'00"E 125.00'
S8°26'15"E 125.00'
S12°04'30"E 125.00'
S15°42'45"E 125.00'
S19°21'00"E 125.00'
S22°59'15"E 125.00'
S26°37'30"E 125.00'
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S33°54'00"E 125.00'
S37°32'15"E 125.00'
S41°10'30"E 125.00'
S44°48'45"E 125.00'
S48°27'00"E 125.00'
S52°05'15"E 125.00'
S55°43'30"E 125.00'
S59°21'45"E 125.00'
S62°60'00"E 125.00'
S66°38'15"E 125.00'
S70°16'30"E 125.00'
S73°54'45"E 125.00'
S77°33'00"E 125.00'
S81°11'15"E 125.00'
S84°49'30"E 125.00'
S88°27'45"E 125.00'
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N84°12'15"E 125.00'
N80°30'30"E 125.00'
N76°48'45"E 125.00'
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S86°11'45"W 125.00'
S82°53'30"W 125.00'
S79°35'15"W 125.00'
S76°17'00"W 125.00'
S72°58'45"W 125.00'
S69°40'30"W 125.00'
S66°22'15"W 125.00'
S63°04'00"W 125.00'
S59°45'45"W 125.00'
S56°27'30"W 125.00'
S53°09'15"W 125.00'
S49°51'00"W 125.00'
S46°32'45"W 125.00'
S43°14'30"W 125.00'
S39°56'15"W 125.00'
S36°38'00"W 125.00'
S33°19'45"W 125.00'
S30°01'30"W 125.00'
S26°43'15"W 125.00'
S23°25'00"W 125.00'
S20°06'45"W 125.00'
S16°48'30"W 125.00'
S13°30'15"W 125.00'
S10°12'00"W 125.00'
S6°53'45"W 125.00'
S3°35'30"W 125.00'
S0°17'15"W 125.00'
S2°59'00"E 125.00'
S6°40'15"E 125.00'
S10°21'30"E 125.00'
S14°02'45"E 125.00'
S17°44'00"E 125.00'
S21°25'15"E 125.00'
S25°06'30"E 125.00'
S28°47'45"E 125.00'
S32°29'00"E 125.00'
S36°10'15"E 125.00'
S39°51'30"E 125.00'
S43°32'45"E 125.00'
S47°14'00"E 125.00'
S50°55'15"E 125.00'
S54°36'30"E 125.00'
S58°17'45"E 125.00'
S61°59'00"E 125.00'
S65°40'15"E 125.00'
S69°21'30"E 125.00'
S73°02'45"E 125.00'
S76°44'00"E 125.00'
S80°25'15"E 125.00'
S84°06'30"E 125.00'
S87°47'45"E 125.00'
N88°31'00"E 125.00'
N84°52'15"E 125.00'
N81°13'30"E 125.00'
N77°34'45"E 125.00'
N73°56'00"E 125.00'
N70°17'15"E 125.00'
N66°38'30"E 125.00'
N62°59'45"E 125.00'
N59°21'00"E 125.00'
N55°42'15"E 125.00'
N52°03'30"E 125.00'
N48°24'45"E 125.00'
N44°46'00"E 125.00'
N41°07'15"E 125.00'
N37°28'30"E 125.00'
N33°49'45"E 125.00'
N30°11'00"E 125.00'
N26°32'15"E 125.00'
N22°53'30"E 125.00'
N19°14'45"E 125.00'
N15°36'00"E 125.00'
N11°57'15"E 125.00'
N8°18'30"E 125.00'
N4°39'45"E 125.00'
N0°59'00"E 125.00'
N2°37'07"E 103.85'
N59°15'07"E 134.54'
S67°41'19"E 396.80'
S78°33'44"E 203.62'
N0°36'41"E 241.70'
N89°37'21"E 127.94'
L=199.34' R=358.00' Δ=31°54'19"
L=70.36' R=330.00' Δ=12°13'01"
L=38.25' R=25.00' Δ=87°40'28"
L=38.25' R=25.00' Δ=87°40'28"
L=38.25' R=25.00' Δ=87°40'28

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PRELIMINARY PLAT AND PUD PLAN

PRELIMINARY PLAT VIEW C

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MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

14

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:17pm

N

0 25 50 100
SCALE IN FEET

GREY CLOUD TRAIL S.

ROW - C.R. (2)

N44°49'07"E 116.30'

N58°45'53"W 312.35'

N46°08'55"E 41.10'

S57°11'35"E 400.13'

N57°11'35"W 411.49'

N62°43'28"W 208.66'

N25°15'16"E 249.90'

S0°36'41"W 260.29'

N72°16'19"W 52.32'

OUTLOT L

OUTLOT M

OUTLOT N

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT N

ALTERNATE TEMPORARY ACCESS EASEMENT PER DOC. NO. 4410150 TO BE VACATED

ROAD E 60'

ROAD D 60'

ROAD G 60'

ROAD F 60'

BLOCK 13

BLOCK 12

BLOCK 4

BLOCK 14

OUTLOT O

OUTLOT P

OUTLOT I

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT I

S78°33'44"E 203.62'

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PRELIMINARY PLAT VIEW D

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

15

SHEET 15 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:18pm

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QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

16

SHEET 16 of 110

N

0 25 50 100
SCALE IN FEET

OUTLOT H
DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT H

OUTLOT I
DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT I

TEMPORARY ACCESS EASEMENT PER DOC. NO. 4410150 TO BE VACATED

Drawing name: X:\2023\230166 — Mississippi Landing\plan sheets\Preliminary Plat\230166preplot.dwg Dec 20, 2023 — 4:18pm

OUTLOT H

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT H

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT G

OUTLOT G

BURLINGTON NORTHERN SANTA FE RAILROAD

S29°03'54"E 2092.00'

ROAD G

ROAD I

ROAD J

BLOCK 6

BLOCK 9

BLOCK 8

BLOCK 10

BLOCK 11

BLOCK 15

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT I

OUTLOT I

DRAINAGE AND UTILITY EASEMENT OVER ALL OF OUTLOT G

OUTLOT G

OUTLOT J

SEE ENLARGED DETAIL A, SHEET 19

N

0 25 50 100

SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN

PRELIMINARY PLAT VIEW F

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MARK R. JUSCH, PE

Date License No.

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QUALITY ASSURANCE/CONTROL

BY DATE

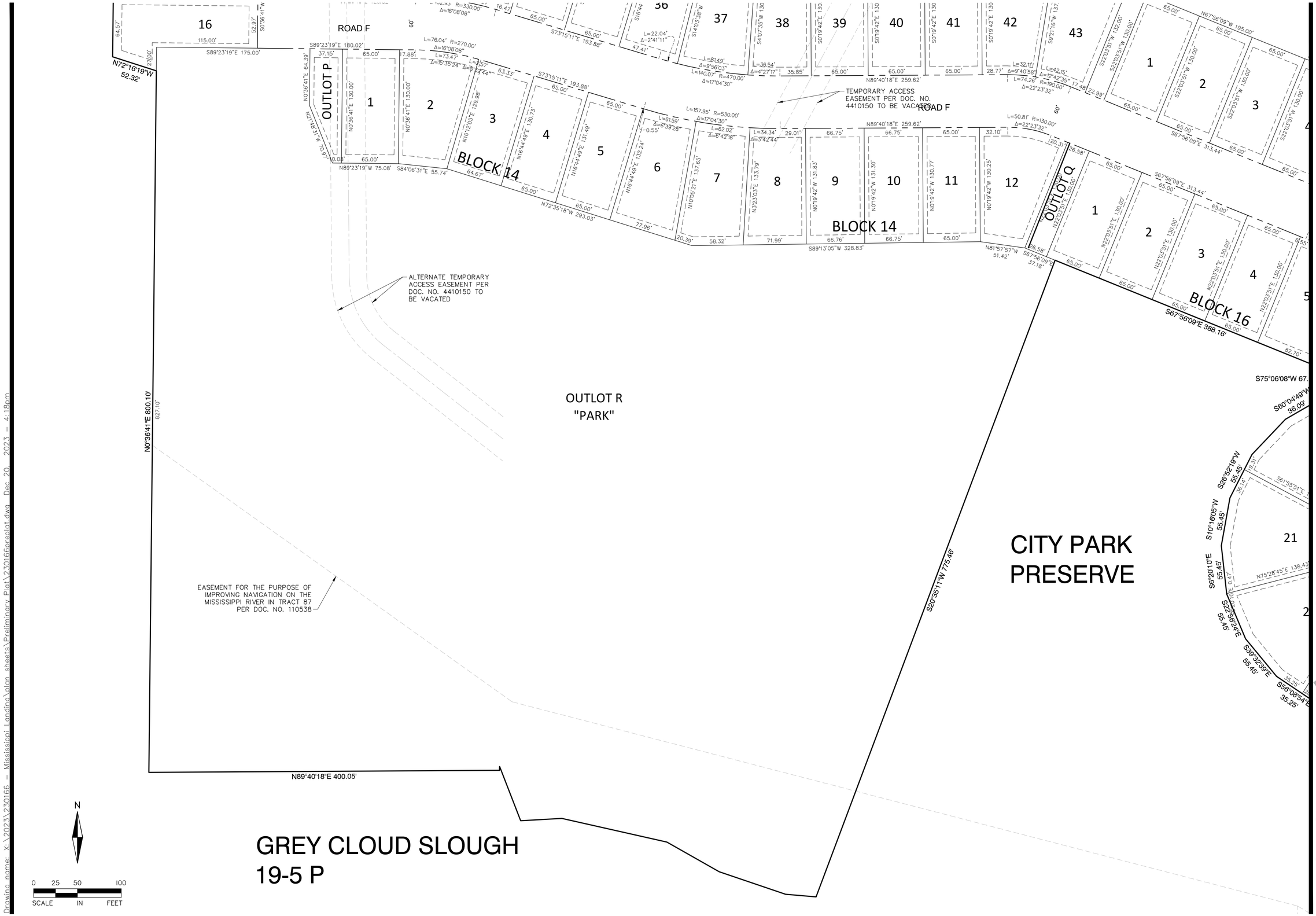
DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

17

Drawing name: X:\2023\230166 — Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 — 4:18pm



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QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

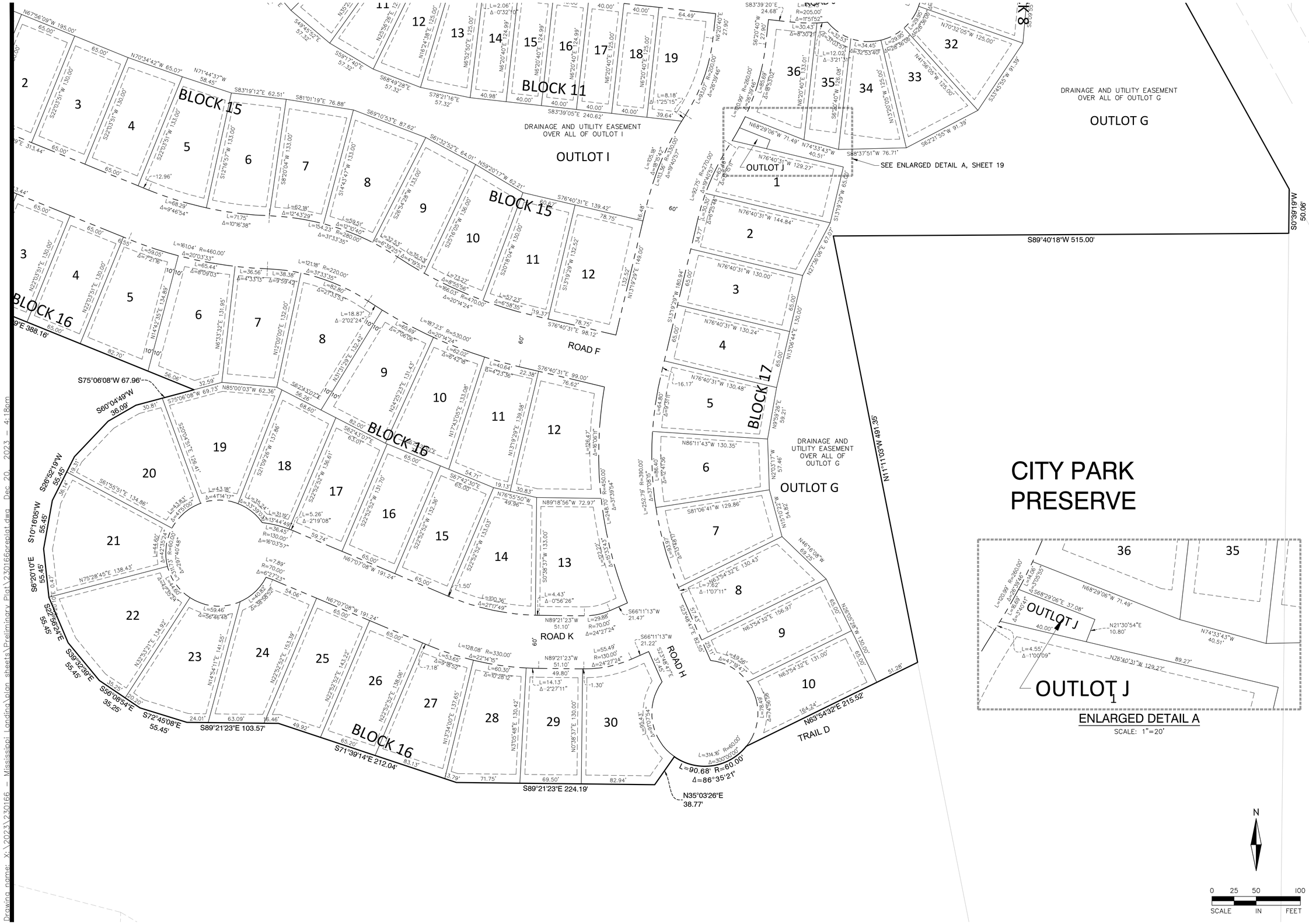
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

18

SHEET 18 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:18pm



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PRELIMINARY PLAT VIEW H

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Date License No.

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QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

19

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:18pm

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B1-L1	11,251	0.26
B1-L2	7,411	0.17
B1-L3	6,991	0.16
B1-L4	6,710	0.15
B1-L5	6,562	0.15
B1-L6	6,545	0.15
B1-L7	5,766	0.13
B1-L8	5,792	0.13
B2-L1	8,792	0.20
B2-L2	6,114	0.14
B2-L3	5,794	0.13
B2-L4	5,116	0.12
B2-L5	5,265	0.12
B2-L6	5,225	0.12
B2-L7	7,784	0.18
B2-L8	5,000	0.11
B2-L9	5,000	0.11
B2-L10	5,000	0.11
B2-L11	6,934	0.16
B3-L1	5,309	0.12
B3-L2	6,811	0.16
B3-L3	7,273	0.17
B3-L4	5,192	0.12
B4-L1	9,580	0.22
B4-L2	7,432	0.17
B4-L3	7,039	0.16
B4-L4	7,867	0.18
B4-L5	9,066	0.21
B4-L6	9,215	0.21
B4-L7	10,715	0.25
B4-L8	9,995	0.23
B4-L9	9,941	0.23
B4-L10	12,421	0.29
B4-L11	17,045	0.39
B4-L12	13,472	0.31
B4-L13	11,618	0.27
B4-L14	9,930	0.23
B4-L15	7,880	0.18
B4-L16	8,391	0.19
B4-L17	9,021	0.21
B4-L18	11,838	0.27
B4-L19	8,166	0.19
B4-L20	9,529	0.22
B4-L21	11,385	0.26
B4-L22	9,610	0.22
B4-L23	9,803	0.23
B4-L24	11,756	0.27
B4-L25	11,154	0.26
B4-L26	9,490	0.22
B4-L27	8,223	0.19

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B5-L1	7,747	0.18
B5-L2	5,994	0.14
B5-L3	6,400	0.15
B5-L4	6,437	0.15
B5-L5	5,516	0.13
B5-L6	5,000	0.11
B5-L7	5,000	0.11
B5-L8	5,000	0.11
B5-L9	5,282	0.12
B5-L10	5,330	0.12
B5-L11	5,993	0.14
B5-L12	5,996	0.14
B5-L13	5,336	0.12
B5-L14	5,336	0.12
B5-L15	5,336	0.12
B5-L16	5,336	0.12
B5-L17	5,365	0.12
B5-L18	5,285	0.12
B5-L19	5,000	0.11
B5-L20	5,625	0.13
B5-L21	5,625	0.13
B5-L22	5,000	0.11
B5-L23	5,000	0.11
B5-L24	5,000	0.11
B5-L25	6,833	0.16
B5-L26	11,000	0.25
B5-L27	7,735	0.18
B5-L28	7,310	0.17
B5-L29	7,175	0.16
B5-L30	7,056	0.16
B5-L31	6,993	0.16
B5-L32	7,669	0.18
B5-L33	7,692	0.18
B5-L34	7,170	0.16
B5-L35	7,160	0.16
B5-L36	7,151	0.16
B5-L37	7,142	0.16
B5-L38	7,130	0.16
B5-L39	7,117	0.16
B5-L40	7,414	0.17
B5-L41	7,348	0.17
B5-L42	6,858	0.16
B5-L43	6,905	0.16
B5-L44	7,057	0.16
B5-L45	10,473	0.24
B5-L46	10,222	0.23
B5-L47	10,205	0.23
B5-L48	10,707	0.25
B5-L49	11,330	0.26
B5-L50	8,484	0.19

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B5-L51	9,436	0.22
B5-L52	8,561	0.20
B5-L53	10,112	0.23
B5-L54	11,395	0.26
B5-L55	7,489	0.17
B5-L56	7,925	0.18
B5-L57	7,389	0.17
B5-L58	7,066	0.16
B5-L59	8,117	0.19
B5-L60	8,117	0.19
B5-L61	8,117	0.19
B5-L62	7,714	0.18
B5-L63	7,931	0.18
B5-L64	8,405	0.19
B5-L65	7,024	0.16
B5-L66	6,906	0.16
B5-L67	6,914	0.16
B5-L68	6,934	0.16
B5-L69	6,935	0.16
B6-L1	7,173	0.16
B6-L2	7,173	0.16
B6-L3	7,173	0.16
B6-L4	7,193	0.17
B6-L5	5,290	0.12
B6-L6	6,557	0.15
B6-L7	6,640	0.15
B6-L8	5,874	0.13
B6-L9	5,328	0.12
B6-L10	5,090	0.12
B6-L11	5,183	0.12
B6-L12	5,317	0.12
B6-L13	5,317	0.12
B6-L14	5,317	0.12
B6-L15	7,703	0.18
B6-L16	9,629	0.22
B6-L17	5,004	0.11
B6-L18	5,884	0.14
B6-L19	6,041	0.14
B6-L20	6,016	0.14
B6-L21	5,907	0.14
B6-L22	5,821	0.13
B6-L23	5,000	0.11
B6-L24	5,000	0.11
B6-L25	5,000	0.11
B6-L26	5,463	0.13
B7-L1	7,300	0.17
B7-L2	5,000	0.11
B7-L3	5,000	0.11
B7-L4	5,746	0.13
B7-L5	6,731	0.15

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B7-L6	6,731	0.15
B7-L7	5,996	0.14
B7-L8	5,996	0.14
B7-L9	5,346	0.12
B7-L10	6,073	0.14
B7-L11	6,152	0.14
B7-L12	5,195	0.12
B7-L13	5,000	0.11
B7-L14	5,000	0.11
B7-L15	5,000	0.11
B8-L1	5,579	0.13
B8-L2	5,579	0.13
B8-L3	5,579	0.13
B8-L4	5,488	0.13
B8-L5	5,450	0.13
B8-L6	5,540	0.13
B8-L7	5,441	0.12
B8-L8	5,000	0.11
B8-L9	5,000	0.11
B8-L10	5,000	0.11
B8-L11	5,625	0.13
B8-L12	5,625	0.13
B8-L13	5,000	0.11
B8-L14	5,000	0.11
B8-L15	5,000	0.11
B8-L16	5,189	0.12
B8-L17	5,366	0.12
B8-L18	5,376	0.12
B8-L19	5,376	0.12
B8-L20	5,357	0.12
B8-L21	5,046	0.12
B8-L22	5,553	0.13
B8-L23	5,553	0.13
B8-L24	5,553	0.13
B8-L25	5,753	0.13
B8-L26	8,293	0.19
B8-L27	5,211	0.12
B8-L28	7,552	0.17
B8-L29	7,293	0.17
B8-L30	7,293	0.17
B8-L31	7,293	0.17
B8-L32	7,293	0.17
B8-L33	7,293	0.17
B8-L34	6,773	0.16
B8-L35	5,255	0.12
B8-L36	7,219	0.17
B9-L1	5,795	0.13
B9-L2	5,795	0.13
B9-L3	5,808	0.13
B9-L4	5,000	0.11

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B9-L5	5,000	0.11
B9-L6	5,000	0.11
B9-L7	5,691	0.13
B9-L8	6,905	0.16
B9-L9	5,000	0.11
B9-L10	5,000	0.11
B9-L11	5,000	0.11
B9-L12	5,000	0.11
B9-L13	5,000	0.11
B9-L14	5,000	0.11
B9-L15	5,000	0.11
B9-L16	5,010	0.12
B9-L17	5,056	0.12
B9-L18	5,107	0.12
B10-L1	9,571	0.22
B10-L2	5,381	0.12
B10-L3	5,370	0.12
B10-L4	5,370	0.12
B10-L5	5,370	0.12
B10-L6	5,370	0.12
B10-L7	7,306	0.17
B10-L8	6,915	0.16
B10-L9	5,127	0.12
B10-L10	5,353	0.12
B10-L11	5,684	0.13
B10-L12	6,122	0.14
B10-L13	6,522	0.15
B10-L14	7,639	0.18
B10-L15	7,415	0.17
B10-L16	6,305	0.14
B10-L17	5,190	0.12
B10-L18	5,078	0.12
B10-L19	5,436	0.12
B10-L20	5,819	0.13
B10-L21	8,144	0.19
B11-L1	6,954	0.16
B11-L2	5,000	0.11
B11-L3	5,000	0.11
B11-L4	5,000	0.11
B11-L5	5,000	0.11
B11-L6	5,000	0.11
B11-L7	5,839	0.13
B11-L8	5,828	0.13
B11-L9	5,828	0.13
B11-L10	5,828	0.13
B11-L11	5,828	0.13
B11-L12	5,828	0.13
B11-L13	5,828	0.13
B11-L14	5,049	0.12
B11-L15	5,000	0.11

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B11-L16	5,000	0.11
B11-L17	5,000	0.11
B11-L18	5,000	0.11
B11-L19	7,270	0.17
B12-L1	6,942	0.16
B12-L2	6,908	0.16
B12-L3	6,825	0.16
B12-L4	6,877	0.16
B12-L5	7,095	0.16
B12-L6	7,541	0.17
B12-L7	7,335	0.17
B12-L8	6,951	0.16
B12-L9	7,661	0.18
B12-L10	7,661	0.18
B12-L11	7,661	0.18
B12-L12	7,661	0.18
B12-L13	7,661	0.18
B12-L14	7,661	0.18
B12-L15	7,661	0.18
B12-L16	7,380	0.17
B12-L17	6,904	0.16
B12-L18	8,850	0.20
B12-L19	9,149	0.21
B12-L20	7,935	0.18
B12-L21	7,250	0.17
B12-L22	10,898	0.25
B12-L23	9,616	0.22
B12-L24	7,477	0.17
B12-L25	7,192	0.17
B12-L26	6,877	0.16
B12-L27	7,846	0.18
B12-L28	7,019	0.16
B12-L29	7,306	0.17
B12-L30	8,420	0.19
B12-L31	8,450	0.19
B12-L32	9,851	0.23
B12-L33	9,925	0.23
B12-L34	8,515	0.20
B12-L35	8,450	0.19
B12-L36	8,642	0.20
B12-L37	9,179	0.21
B12-L38	8,777	0.20
B12-L39	8,450	0.19
B12-L40	8,450	0.19
B12-L41	8,450	0.19
B12-L42	9,548	0.22
B12-L43	9,888	0.23
B13-L1	8,149	0.19
B13-L2	8,137	0.19
B13-L3	8,504	0.20

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B13-L4	8,675	0.20
B13-L5	9,651	0.22
B13-L6	10,280	0.24
B13-L7	11,451	0.26
B13-L8	11,664	0.27
B13-L9	10,990	0.25
B13-L10	10,613	0.24
B13-L11	10,784	0.25
B13-L12	10,245	0.24
B13-L13	9,347	0.21
B13-L14	8,796	0.20
B13-L15	8,663	0.20
B13-L16	9,705	0.22
B14-L1	8,450	0.19
B14-L2	9,653	0.22
B14-L3	8,510	0.20
B14-L4	8,522	0.20
B14-L5	8,571	0.20
B14-L6	9,383	0.22
B14-L7	9,622	0.22
B14-L8	8,955	0.21
B14-L9	8,782	0.20
B14-L10	8,746	0.20
B14-L11	8,483	0.19
B14-L12	10,246	0.24
B15-L1	8,450	0.19
B15-L2	8,450	0.19
B15-L3	8,450	0.19
B15-L4	8,548	0.20
B15-L5	9,351	0.21
B15-L6	8,978	0.21
B15-L7	9,142	0.21
B15-L8	9,659	0.22
B15-L9	8,845	0.20
B15-L10	9,025	0.21
B15-L11	9,047	0.21
B15-L12	10,436	0.24
B16-L1	8,450	0.19
B16-L2	8,450	0.19
B16-L3	8,450	0.19
B16-L4	8,450	0.19
B16-L5	9,735	0.22
B16-L6	10,462	0.24
B16-L7	9,069	0.21
B16-L8	10,562	0.24
B16-L9	9,676	0.22
B16-L10	9,168	0.21
B16-L11	9,349	0.21
B16-L12	11,719	0.27
B16-L13	11,402	0.26

PARCEL AREA TABLE		
PARCEL	AREA SF	AREA AC
B16-L14	10,191	0.23
B16-L15	8,625	0.20
B16-L16	8,582	0.20
B16-L17	8,711	0.20
B16-L18	9,234	0.21
B16-L19	11,835	0.27
B16-L20	12,246	0.28
B16-L21	13,011	0.30
B16-L22	13,021	0.30
B16-L23	10,512	0.24
B16-L24	11,365	0.26
B16-L25	9,515	0.22
B16-L26	9,142	0.21
B16-L27	9,830	0.23
B16-L28	9,764	0.22
B16-L29	8,675	0.20
B16-L30	11,953	0.27
B17-L1	8,999	0.21
B17-L2	8,970	0.21
B17-L3	8,458	0.19
B17-L4	8,473	0.19
B17-L5	9,202	0.21
B17-L6	9,427	0.22
B17-L7	9,729	0.22
B17-L8	9,343	0.21
B17-L9	9,554	0.22
B17-L10	8,979	0.21
OUTLOT A	35,717	0.82
OUTLOT B	39,837	0.91
OUTLOT C	816	0.02
OUTLOT D	107,863	2.48
OUTLOT E	20,366	0.47
OUTLOT F	21,712	0.50
OUTLOT G	758,150	17.40
OUTLOT H	112,256	2.58
OUTLOT I	188,399	4.33
OUTLOT J	518	0.01
OUTLOT K	3,085	0.07
OUTLOT L	6,473	0.15
OUTLOT M	16,234	0.37
OUTLOT N	31,370	0.72
OUTLOT O	3,660	0.08
OUTLOT P	3,941	0.09
OUTLOT Q	3,455	0.08
OUTLOT R	657,228	15.09
ROW - C.R. (1)	161,080	3.70
ROW - C.R. (2)	32,539	0.75
ROW - G.C.T.S.	44,408	1.02
ROW - INTER	813,657	18.68
TOTAL	5,872,667	134.82

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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

PRELIMINARY PLAT PARCEL AREA TABLE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

MARK R. RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

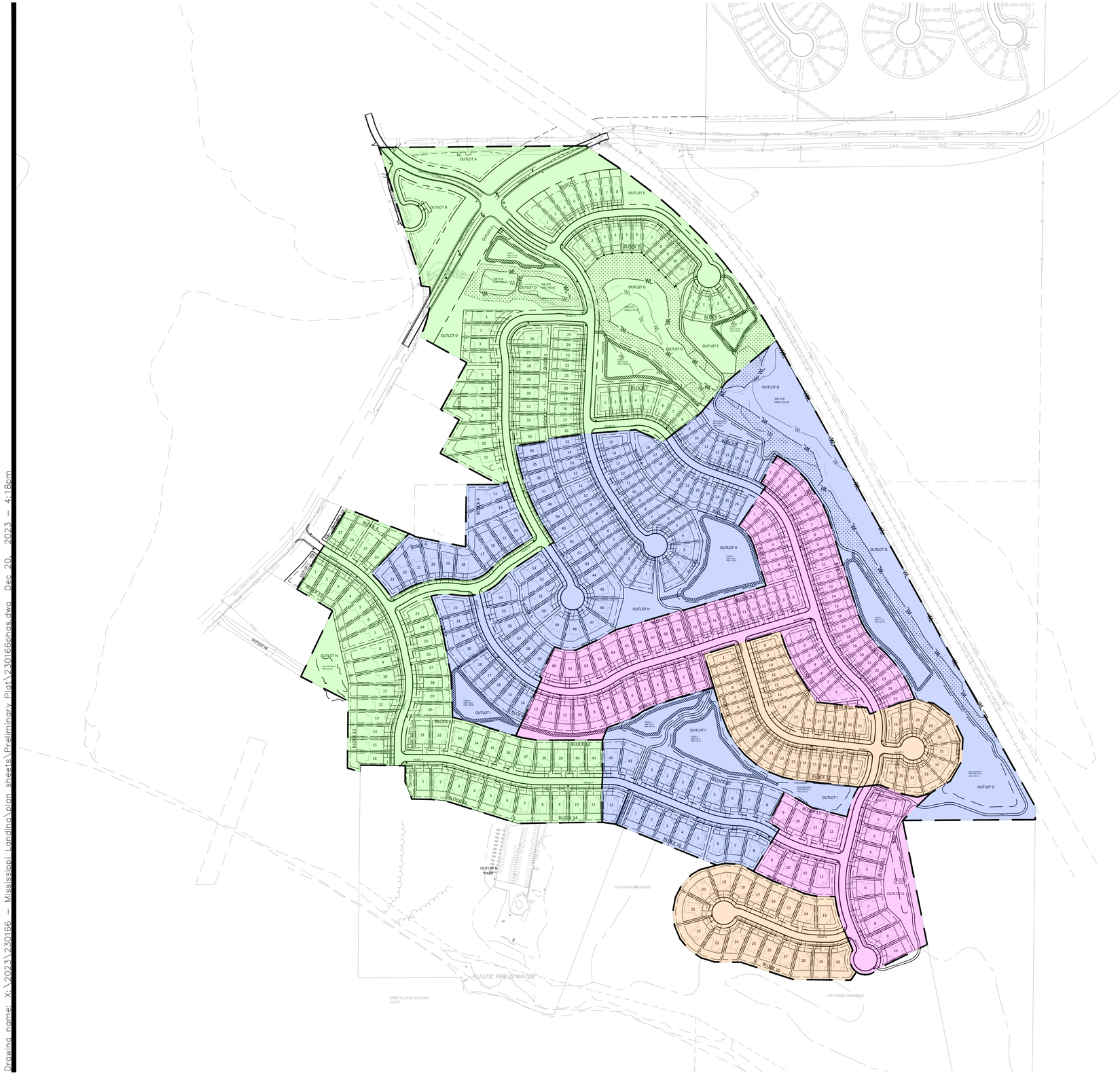
BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166preplat.dwg Dec 20, 2023 - 4:18pm



PHASE 1:

APPROXIMATE AREA:	44.44 ACRES
LOT TYPE BREAKDOWN	
SINGLE FAMILY LOT	22
VILLA LOT	47
DETACHED TOWNHOMES	41
TOTAL	110

PHASE 2:

APPROXIMATE AREA:	40.81 ACRES
LOT TYPE BREAKDOWN	
SINGLE FAMILY LOT	19
VILLA LOT	47
DETACHED TOWNHOMES	48
TOTAL:	114

PHASE 3:

APPROXIMATE AREA:	20.00 ACRES
LOT TYPE BREAKDOWN	
SINGLE FAMILY LOTS	18
VILLA LOTS	23
DETACHED TOWNHOMES	50
TOTAL:	91

PHASE 4:

APPROXIMATE AREA:	13.12 ACRES
LOT TYPE BREAKDOWN	
SINGLE FAMILY LOTS	18
VILLA LOTS	0
DETACHED TOWNHOMES	44
TOTAL:	62

NOTE:

PHASING DEPICTED IS FOR PROPOSED INFRASTRUCTURE (UTILITY AND ROAD) INSTALLATION WORK. THE SITE MASS GRADING PHASING LIMITS WILL VARY FROM INFRASTRUCTURE WORK LIMITS AS NEEDED TO BALANCE EARTHWORK AND ACCOMMODATE DRAINAGE.

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4

N

0 100 200 400
SCALE IN FEET

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

PHASING PLAN

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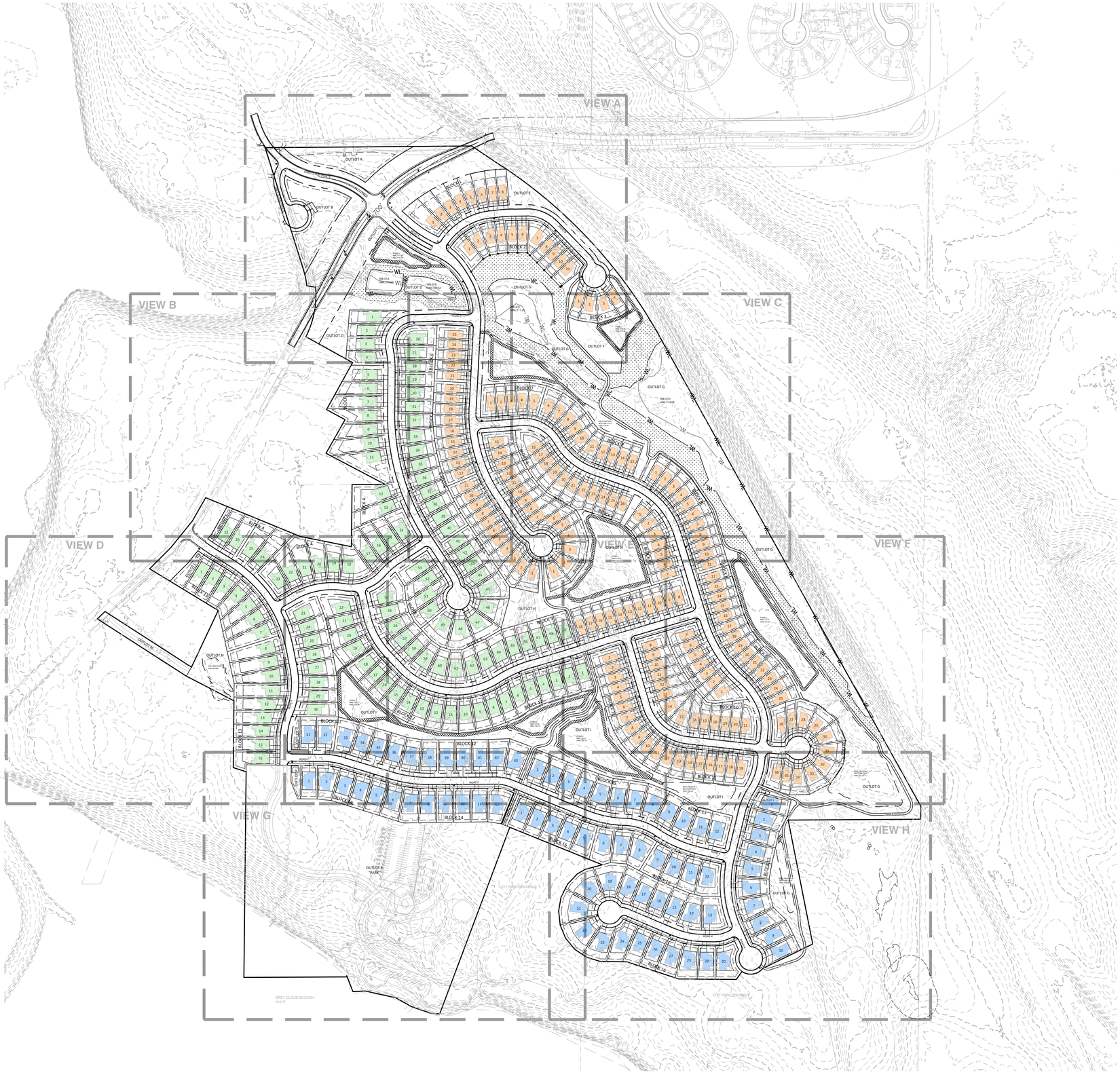
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

21

SHEET 21 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166phgs.dwg Dec 20, 2023 - 4:18pm



SITE PLAN DATA:

PIDS: 3002721130010	104.9 AC
3002721430002	9.6 AC
3002721430001	4.0 AC
3002721420002	5.0 AC
3002721420003	0.9 AC
3002721420001	2.0 AC
3002721310014	6.9 AC
GROSS AREA	134.82 AC
OUTLOT A (CITY)	0.82 AC
OUTLOT B (CITY)	0.91 AC
OUTLOT R (CITY PARK)	15.09 AC
OUTLOT WITH PONDS/WETLANDS (D,G,H,I)	26.79 AC
OUTLOT (C,E,F,J,K,L,M,N,O,P,Q)	2.56 AC
ROW (FUTURE COUNTY ROAD)	4.45 AC
ROW (GREY CLOUD TRAIL S.)	1.02 AC
ROW (INTERIOR)	18.68 AC
WETLAND AREA (WCA+ACOE)	5.53 AC

SITE PLAN LOT DATA:

SMALL SINGLE FAMILY LOTS (40'):

LOT WIDTH MINIMUM:	40 FT
LOT DEPTH MINIMUM:	125 FT
FRONT YARD SETBACK:	20 FT (NON-SIDEWALK SIDE) OR 22.5 FT (SIDEWALK FRONTAGE)
REAR YARD SETBACK:	30 FT
SIDE YARD SETBACK:	5 FT (BOTH SIDES - 10' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

MID SINGLE FAMILY LOTS (52.5'):

LOT WIDTH MINIMUM:	52.5 FT
LOT DEPTH MINIMUM:	130 FT
FRONT YARD SETBACK:	25 FT (ALL)
REAR YARD SETBACK:	35 FT
SIDE YARD SETBACK:	6.25 FT (BOTH SIDES - 12.5' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

LARGE SINGLE FAMILY LOTS (65'):

LOT WIDTH MINIMUM:	65 FT
LOT DEPTH MINIMUM:	130 FT
FRONT YARD SETBACK:	25 FT (ALL)
REAR YARD SETBACK:	35 FT
SIDE YARD SETBACK:	6.25 FT (BOTH SIDES - 12.5' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

LOT TYPE BREAKDOWN:

SMALL SINGLE FAMILY LOTS	183
MID SINGLE FAMILY LOTS	117
LARGE SINGLE FAMILY LOTS	77
TOTAL UNITS	377

SITE NOTES:

SEE SHEET 23 FOR TYPICAL LOT DETAILS, TYPICAL ROAD SECTIONS, AND LIGHTING AND SIGNAGE DETAILS.

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- STREET SIGN
- STREET LIGHT
- WETLAND BUFFER
- POND ACCESS
- WETLAND BUFFER MONUMENT

LOT STYLE	PAD SIZE
SMALL SF LOTS	30'x65'
MEDIUM SF LOTS	40'x70'
LARGE SF LOTS	52.5'x70'

N

0 100 200 400
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN
SITE, LIGHTING, AND SIGNAGE PLAN OVERALL

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MARK R. JESCH, PE
Date License No.

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BY DATE

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PROJECT TEAM DATA

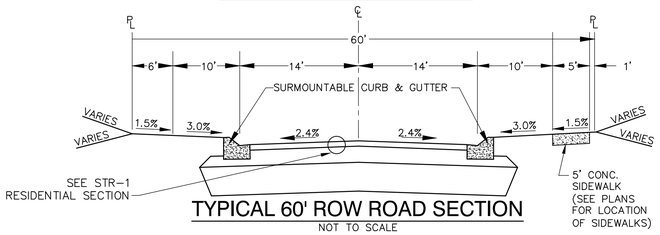
DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

22

SHEET 22 of 110

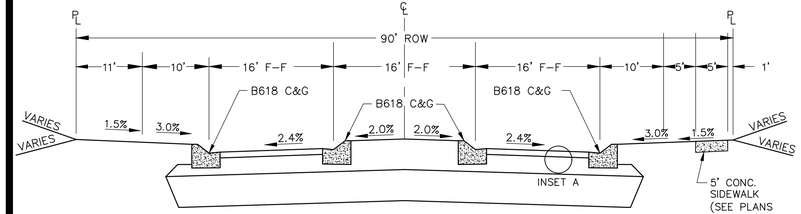
Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:18pm

ROAD SECTIONS



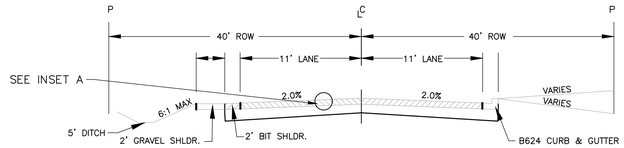
TYPICAL 60' ROW ROAD SECTION

NOT TO SCALE



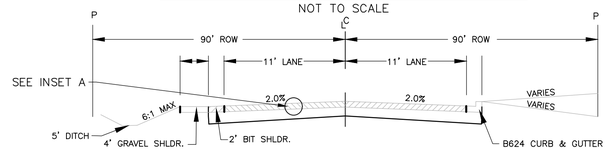
MEDIAN ENTRY ROAD SECTION

NOT TO SCALE



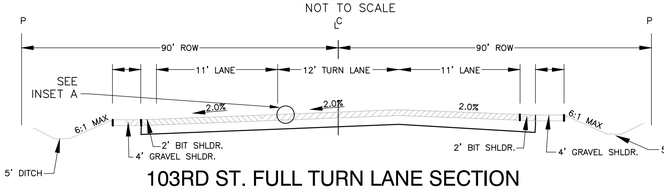
GREY CLOUD TRAIL RURAL SECTION

NOT TO SCALE



103RD ST. RURAL SECTION

NOT TO SCALE

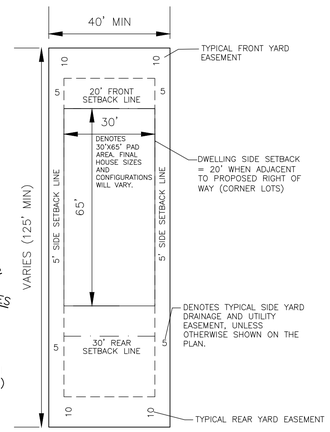


103RD ST. FULL TURN LANE SECTION

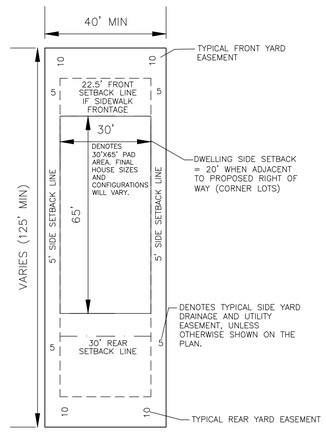
NOT TO SCALE

DEVELOPMENT LOT DETAILS

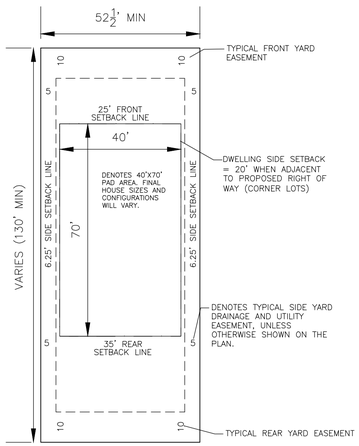
SMALL SINGLE FAMILY LOTS



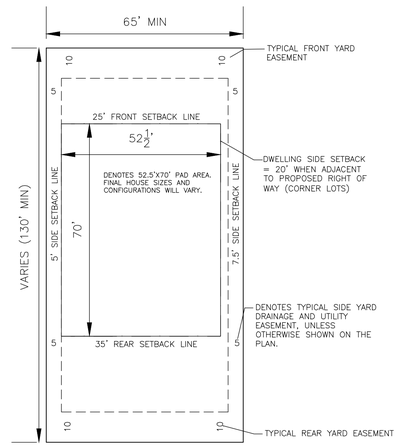
SMALL SINGLE FAMILY LOTS

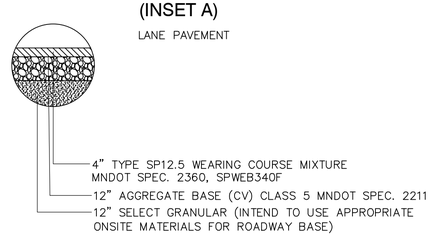


MEDIUM SINGLE FAMILY LOTS



LARGE SINGLE FAMILY LOT

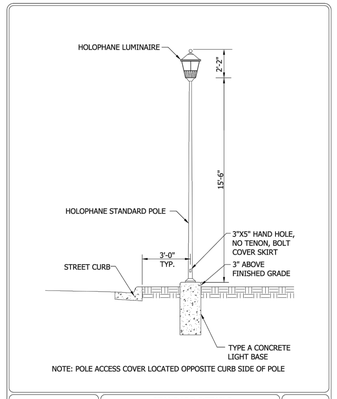




SIGN SCHEDULE

SIGN	SIGN NO.	SIZE	QUANTITY
	LED ENHANCED W3-1	30" X 30"	2
TRAIL X-ING	W11-15 W11-15P	30" X 30" 24" X 18"	4
AHEAD	W11-2 W16-9P	30" X 30" 24" X 12"	4
STOP	LED ENHANCED R1-1	30" X 30" (WHITE ON RED)	2
12-6"	LED ENHANCED W12-2	36" X 36" (BLACK ON YELLOW)	2

STANDARD DETAILS



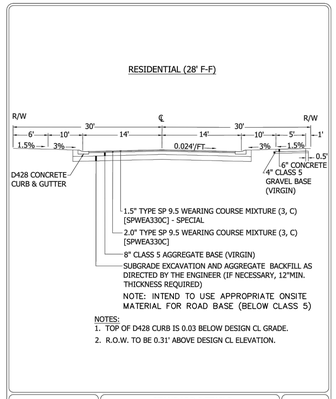
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
LIGHT POLE TYPE A
RESIDENTIAL
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. LGT-7

48_LGT7.DWG



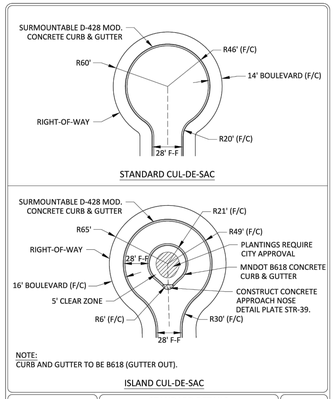
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
TYPICAL PUBLIC STREET SECTION
RESIDENTIAL (28' F-F)
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STR-1

48_STR1.DWG



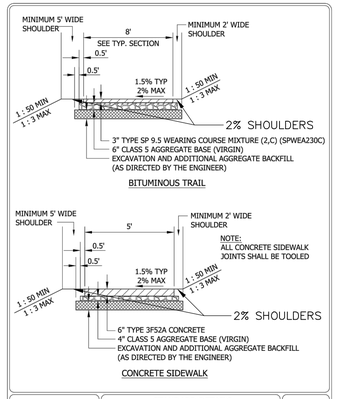
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
TYPICAL CUL-DE-SAC SECTIONS
RESIDENTIAL (28' F-F)
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STR-4

48_STR4.DWG



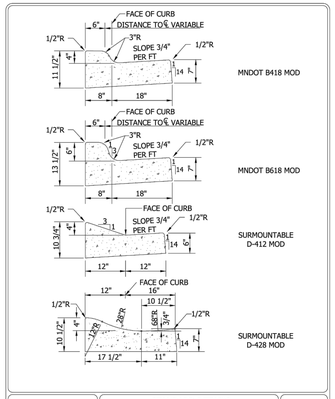
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
TYPICAL BITUMINOUS TRAIL AND
CONCRETE SIDEWALK SECTIONS
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STR-9

48_STR9.DWG



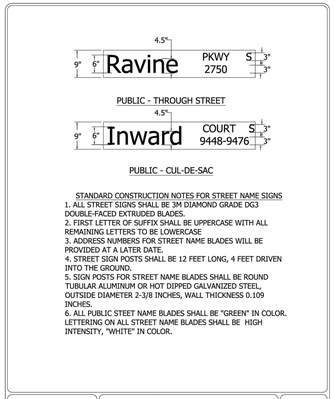
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
CURB AND GUTTER
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STR-10

48_STR10.DWG



Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
STREET NAME BLADE SIGNS
PUBLIC STREETS
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STR-29

48_STR29.DWG

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MISSISSIPPI LANDING
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PRELIMINARY PLAT AND PUD PLAN
SITE NOTES AND DETAILS

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MARK R. RUSCH, PE
Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

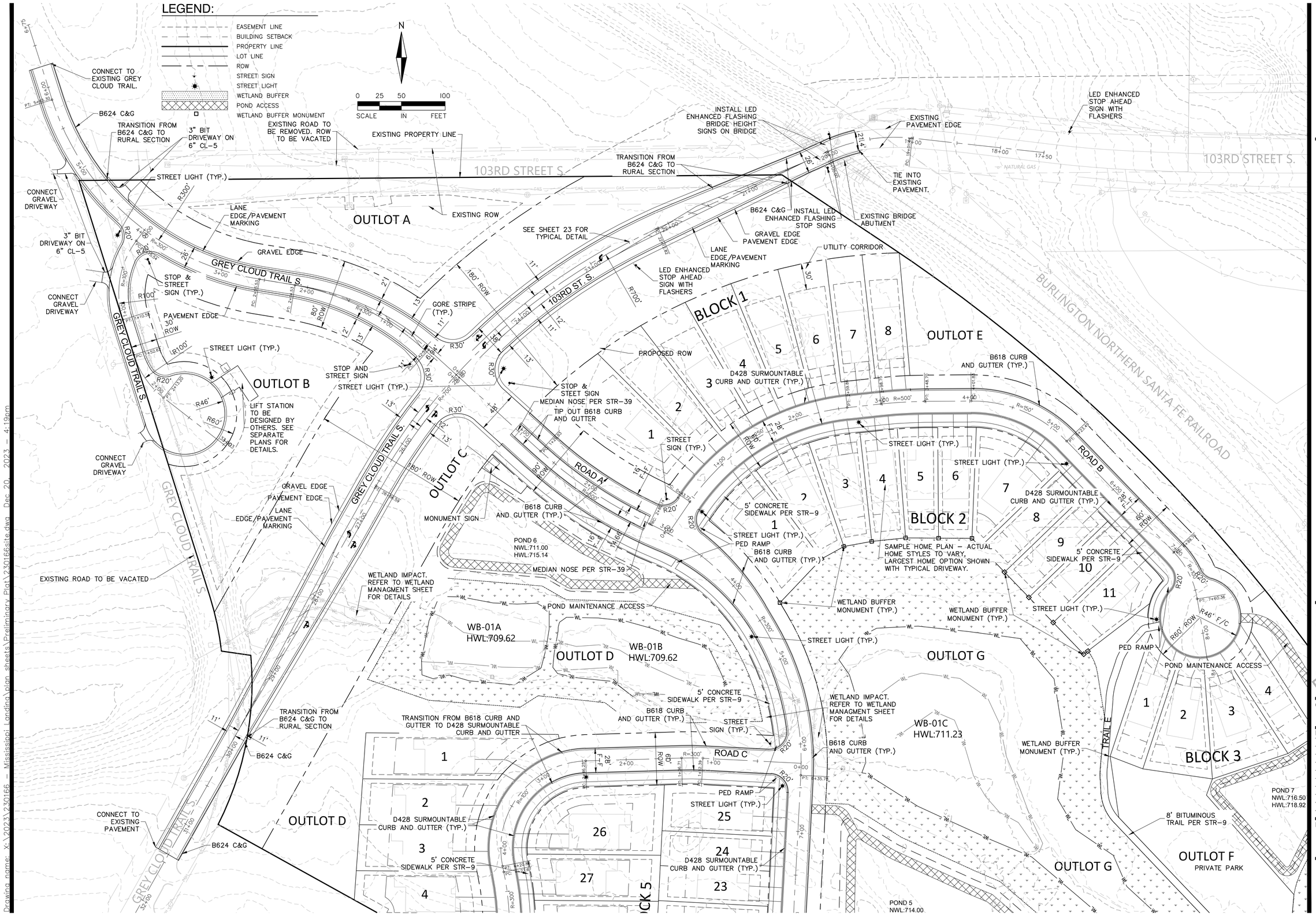
DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

23

SHEET 23 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:18pm



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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

SITE, LIGHTING, AND SIGNAGE PLAN VIEW A

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12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

24

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:19pm

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- STREET SIGN
- STREET LIGHT
- WETLAND BUFFER
- POND ACCESS
- WETLAND BUFFER MONUMENT

N

0 25 50 100
SCALE IN FEET

TRANSITION FROM B624 C&G TO RURAL SECTION
B624 C&G
CONNECT TO EXISTING PAVEMENT
OUTLOT D
GREY CLOUD TRAILS S.
EXISTING PAVEMENT EDGE
TRANSITION FROM B618 CURB AND GUTTER TO D428 SURMOUNTABLE CURB AND GUTTER
5' CONCRETE SIDEWALK PER STR-9
B618 CURB AND GUTTER (TYP.)
STREET SIGN (TYP.)
WETLAND IMPACT. REFER TO WETLAND MANAGMENT SHEET FOR DETAILS
ROAD C
PED RAMP
STREET LIGHT (TYP.)
D428 SURMOUNTABLE CURB AND GUTTER (TYP.)
POND 5
NWL:714
HWL:718
BLOCK 4
BLOCK 5
SAMPLE HOME PLAN – ACTUAL HOME STYLES TO VARY, LARGEST HOME OPTION SHOWN WITH TYPICAL DRIVEWAY.
ROAD H
ROAD D
ROAD E
OUTLOT K
90' ROW
STOP & STEET SIGN
END D428 SURMOUNTABLE CURB AND GUTTER
MONUMENT SIGN
4' GRVL. SHOULDER
END 5' CONCRETE SIDEWALK

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PRELIMINARY PLAT AND PUD PLAN

SITE, LIGHTING, AND SIGNAGE PLAN VIEW B

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MARK RAUSCH, PE
Date License No.

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QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

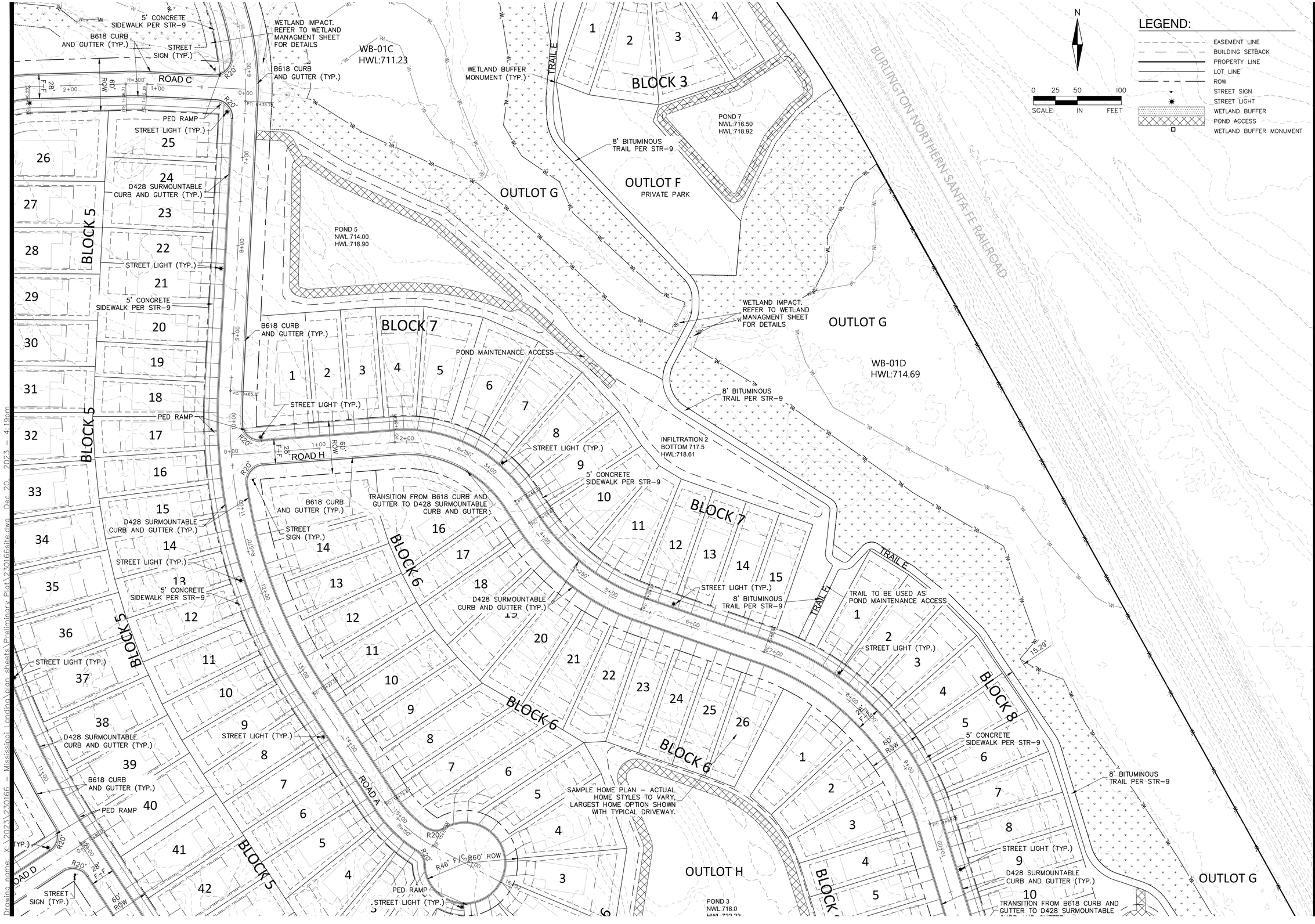
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

25

SHEET 25 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:19pm



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SITE, LIGHTING, AND SIGNAGE PLAN VIEW C

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PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

26

SHEET 26 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:19pm

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- STREET SIGN
- STREET LIGHT
- WETLAND BUFFER
- POND ACCESS
- WETLAND BUFFER MONUMENT

N

0 25 50 100
SCALE IN FEET

MONUMENT SIGN
END 5' CONCRETE SIDEWALK
4' GRVL SHOULDER
5' CONCRETE SIDEWALK PER STR-9
D428 SURMOUNTABLE CURB AND GUTTER (TYP.)
B618 CURB AND GUTTER (TYP.)
STREET LIGHT (TYP.)
STREET SIGN (TYP.)
PED RAMP
MONUMENT SIGN
POND MAINTENANCE ACCESS
TRANSITION FROM B618 CURB AND GUTTER TO D428 SURMOUNTABLE CURB AND GUTTER
POND 1
NWL:736.0
HWL:739.89
SW LOW POINT
HWL:931.58
100-YEAR HWL
SAMPLE HOME PLAN – ACTUAL HOME STYLES TO VARY, LARGEST HOME OPTION SHOWN WITH TYPICAL DRIVEWAY.
CITY PARK
GREY CLOUD TRAIL S.
90' ROW
60' ROW
28' F-F
ROAD E
ROAD D
ROAD G
ROAD F
BLOCK 4
BLOCK 13
BLOCK 12
BLOCK 14
OUTLOT C
OUTLOT M
OUTLOT N
OUTLOT O
OUTLOT P
OUTLOT I

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DRAWN:	LRJ
PROJECT NO:	223-0166

27

SHEET 27 of 110

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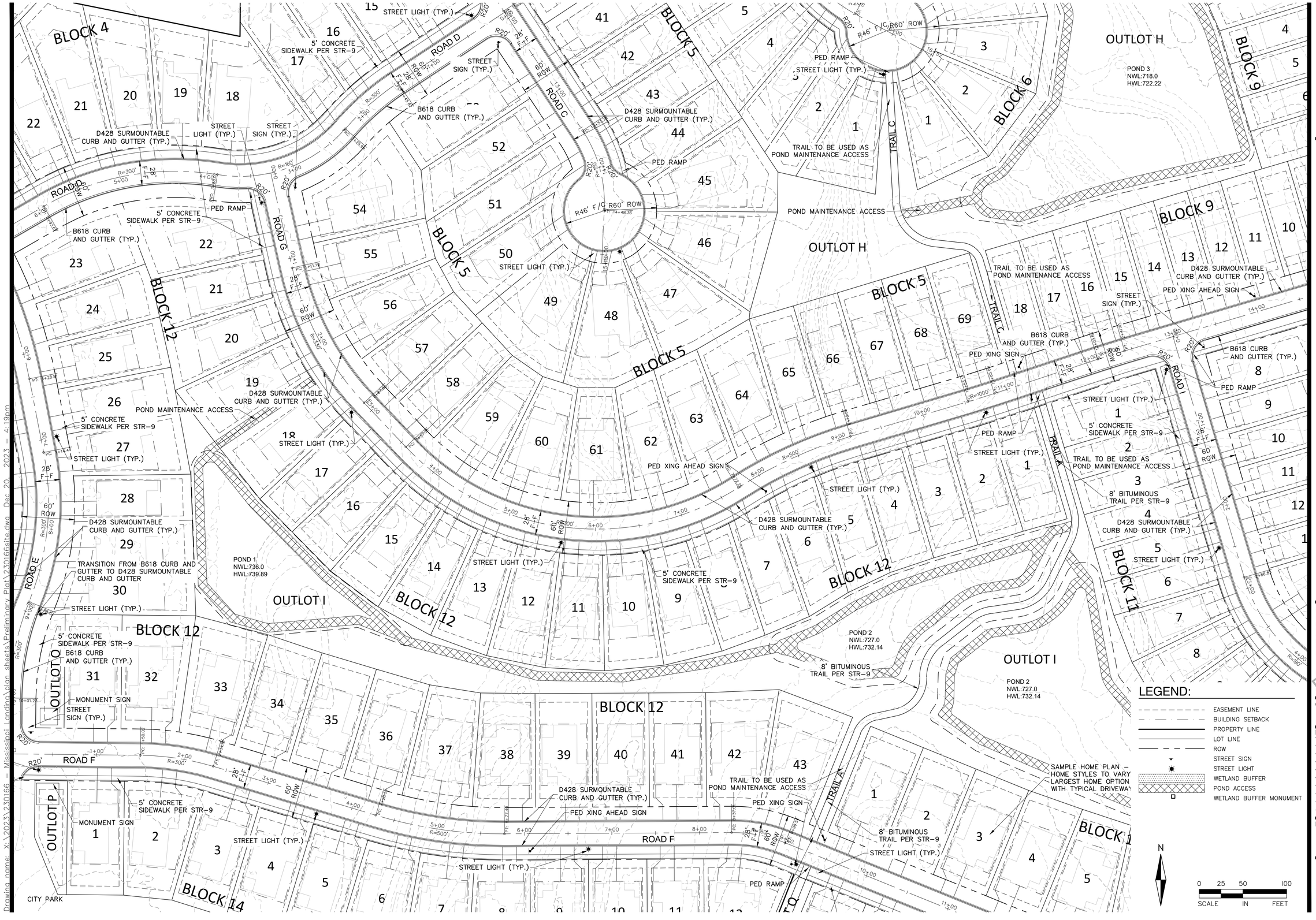

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- STREET SIGN
- STREET LIGHT
- WETLAND BUFFER
- POND ACCESS
- WETLAND BUFFER MONUMENT

N

0 25 50 100
SCALE IN FEET

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28

SHEET 28 of 110

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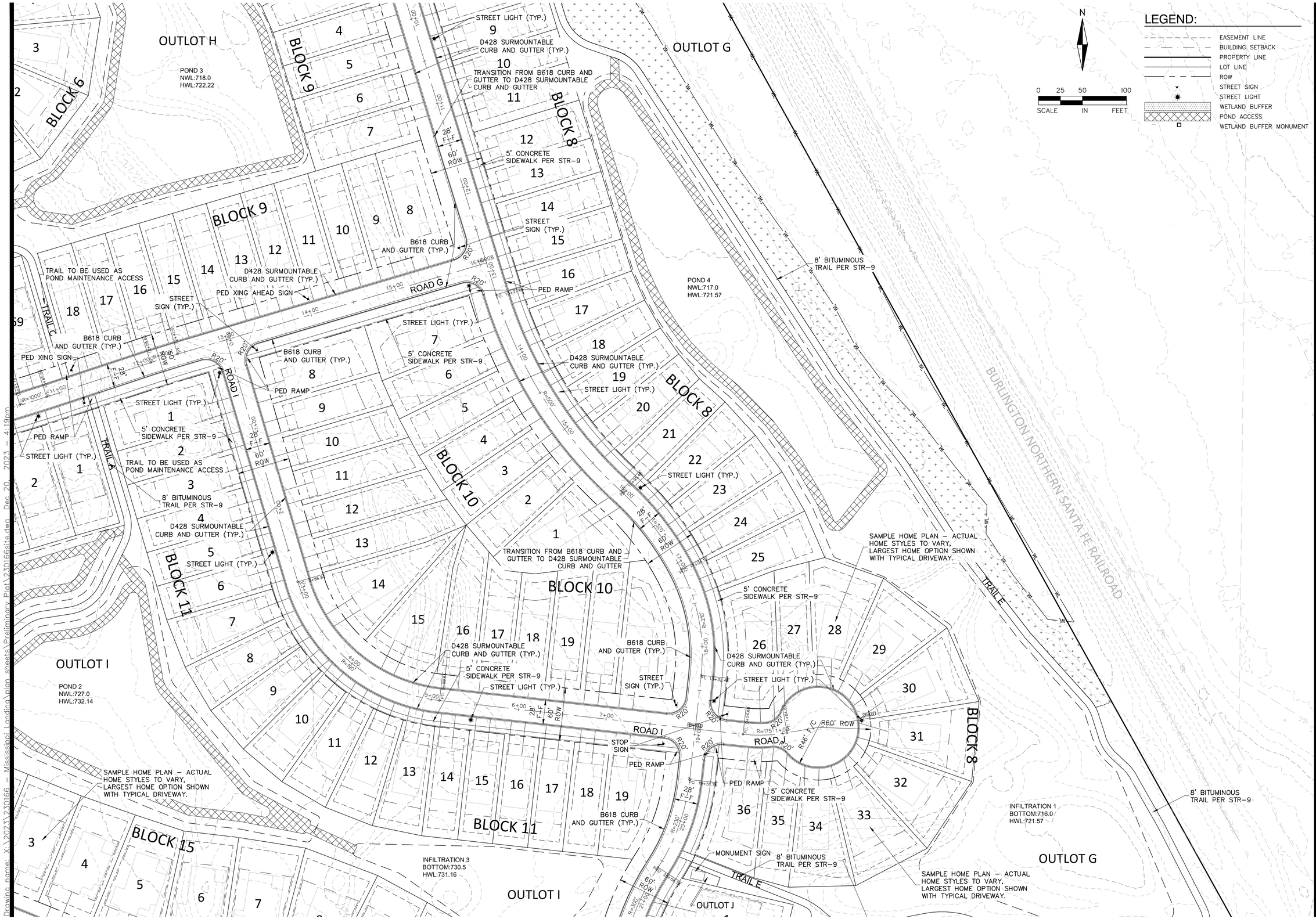

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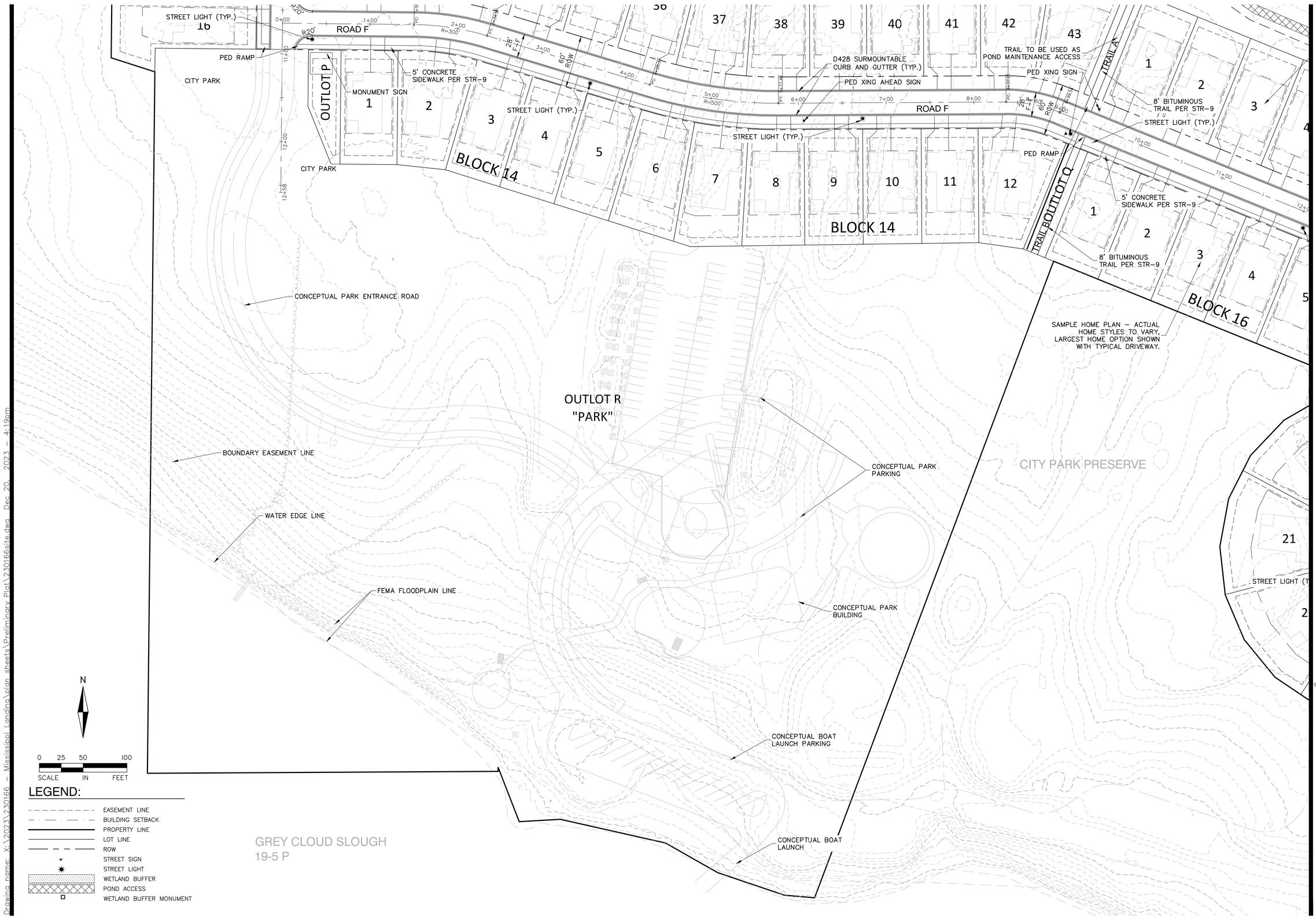

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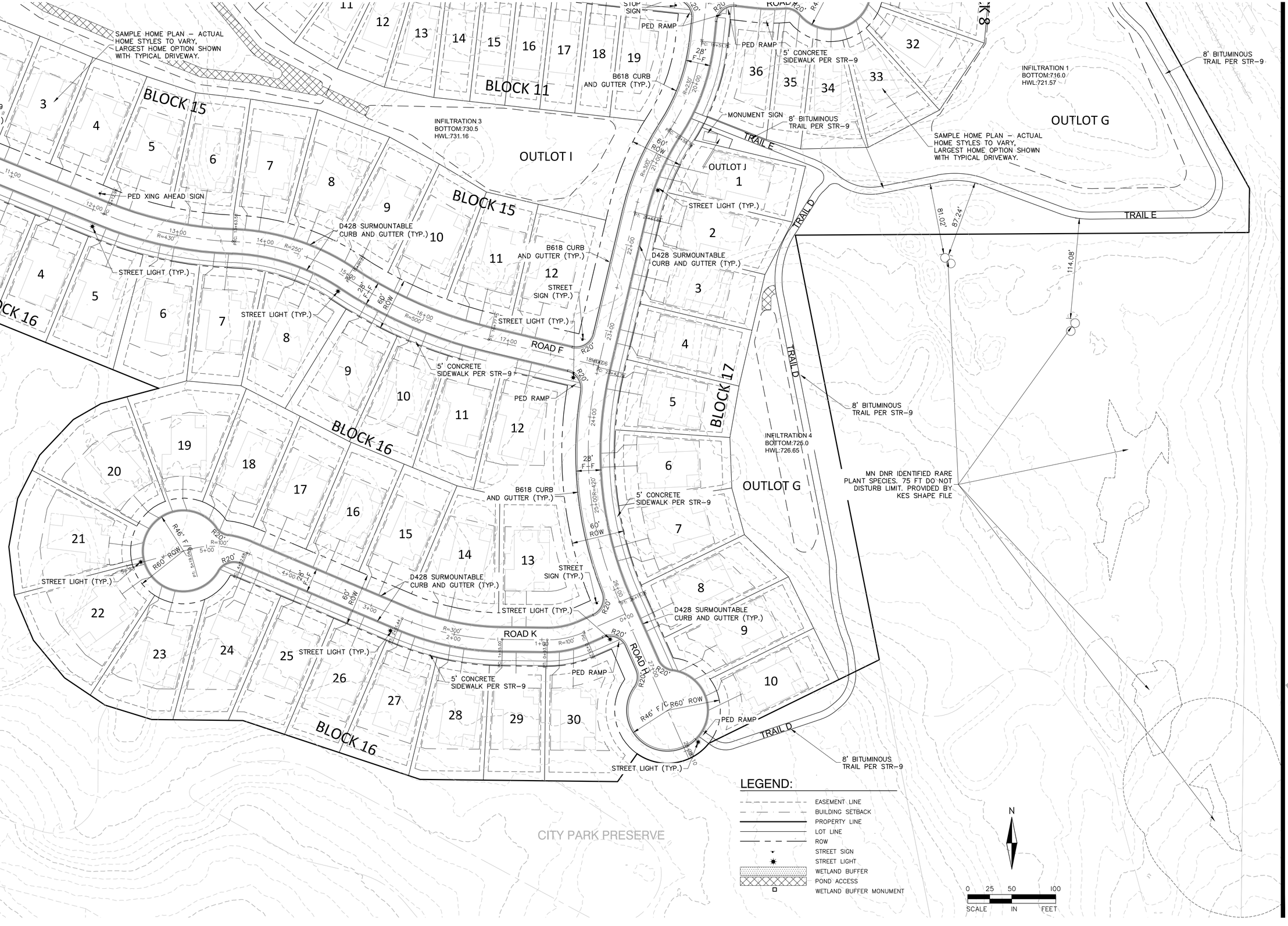

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31

SHEET 31 of 110

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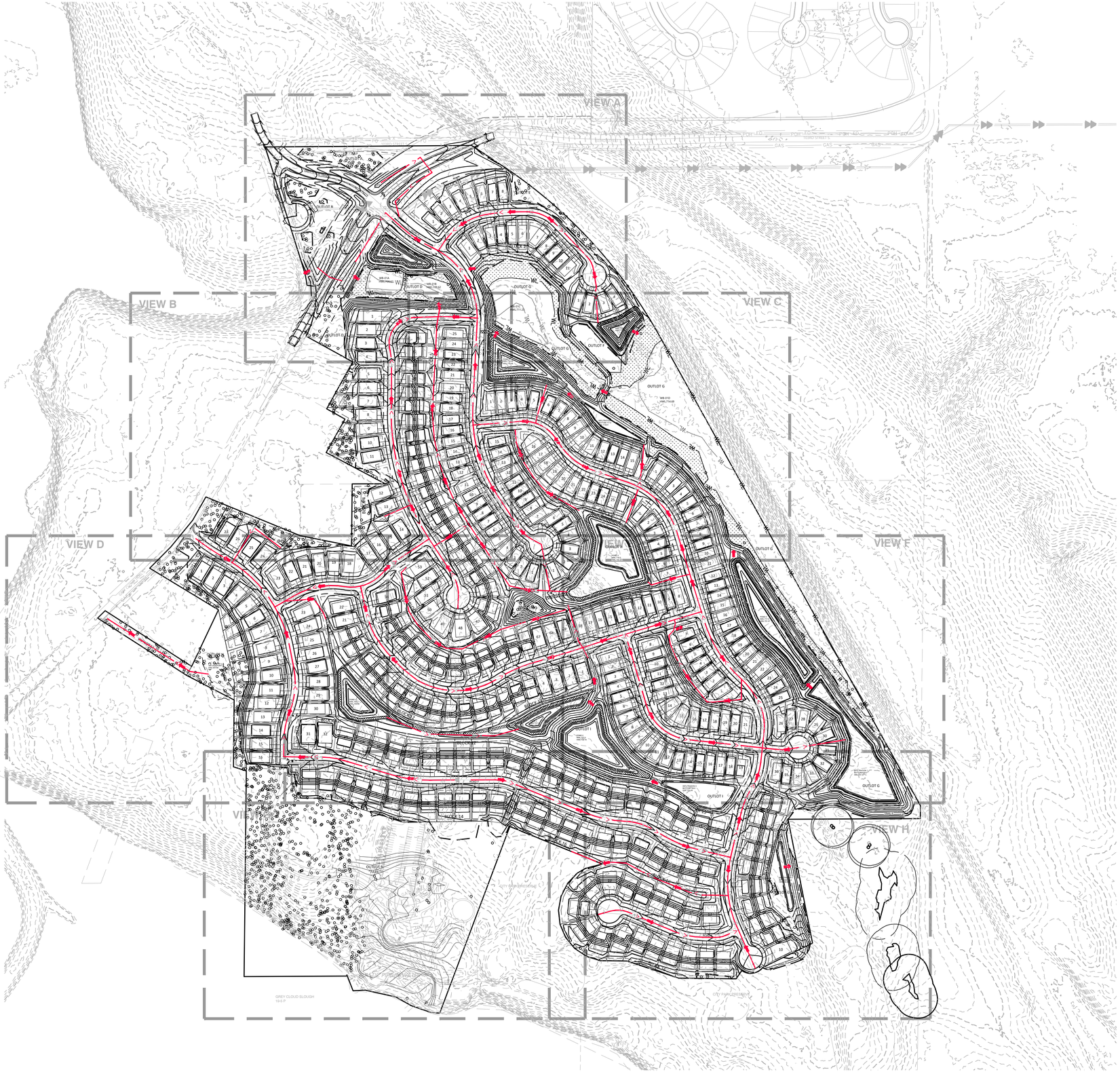

GRADING NOTES:

1. ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%. ALL SWALES SHALL HAVE A MINIMUM SLOPE OF 2.00%.
2. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND WATERSHED.
3. NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. ALL IMPROVEMENTS TO CONFORM WITH CITY OF DAYTON CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
5. FOR ANY SITE ACTIVITY: NO CLOSURES OR RESTRICTIONS OF ANY KIND SHALL BE IMPOSED UPON THE PUBLIC USE OF 117TH AVE N WITHOUT THE CITY'S PERMISSION. SHOULD ANY LANE RESTRICITON BE NECESSARY, THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST 48 HOURS IN ADVANCE AND PROVIDE A TRAFFIC CONTROL PLAN.
6. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
7. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL, FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
8. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
9. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
10. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
11. THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE APPROPRIATE METHOD.
12. REFER TO STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATION, DESCRIPTIONS, NOTES AND DETAILS INCLUDING CONCRETE WASHOUT STATION INSTRUCTIONS.
13. FREEBOARD: THE LOW FLOOR ELEVATION OF PADS SHALL BE AT MINIMUM 3.0 FT ABOVE THE CRITICAL EVENT 100-YEAR ELEVATION AND AT MINIMUM 2.0 FT ABOVE THE EMERGENCY OVERFLOW (EOF) ELEVATION OF NEARBY WATERBODIES AND STORMWATER PONDS.
14. SEE GRADING PROFILES FOR ADDITIONAL GRADING DETAILS ON ALL ROADWAYS AND TRAILS.
15. SEE POND PROFILE AND DETAIL SHEETS FOR ADDITIONAL POND CROSS SECTIONS AND DESIGN DETAIL.

RETAINING WALL NOTES:

RETAINING WALL MASS GRADING PREPARATION

1. ALL RETAINING WALLS SHALL BE ROUGH GRADED AT A 2:1 SLOPE WITH BASE OF SLOPE AT PROPOSED WALL FACE.
2. THE RETAINING WALL SLOPE AREAS ARE TO BE MAINTAINED UNTIL RETAINING WALL CONSTRUCTION OCCURS. ANY EROSION SHALL BE REMEDIED AND RESTORED.
3. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ANY QUESTIONS REGARDING THE BUILDING PERMITS SHALL BE DIRECTED TO THE CITY BUILDING INSPECTOR.
4. INSTALL SAFETY RAILING ATOP ALL WALLS WHERE REQUIRED BY CODE.
5. RETAINING WALL CONTRACTOR AND/OR RETAINING WALL STRUCTURAL ENGINEER ARE RESPONSIBLE TO REVIEW CIVIL SITE ENGINEERING DRAWINGS. ANY OBSERVED CONCERNS WITH CIVIL SITE ENGINEERING DESIGN ELEMENTS RELATED TO RETAINING WALLS THAT REQUIRE MODIFICATIONS TO THE CIVIL SITE DESIGN IS THEIR RESPONSIBILITY TO COORDINATE WITH PROJECT OWNER AND CIVIL SITE ENGINEER. IF NO COORDINATION IS REQUESTED IT SHALL BE UNDERSTOOD THAT ALL CONDITIONS WITHIN THE CIVIL SITE DESIGN AND PLANS ARE ACCEPTABLE AND ABLE TO BE PROVIDED FOR IN THE RETAINING WALL DESIGN AND CONSTRUCTION.
6. RETAINING WALLS ARE TO BE FINAL DESIGNED AND PERMITTED BY OTHERS.
7. RETAINING WALLS DEPICTED ON ALLIANT GRADING PLAN AS MODULAR BLOCK RETAINING WALLS.

GRADING LEGEND:

- FRONT OF PAD / 954.3 / 955.0 / L(1) / 946.5 / 949.1 / REAR OF PAD — GARAGE FLOOR ELEVATION; TOP OF FOUNDATION; HOUSE TYPE, ADDITIONAL REQUIRED STEPS BEYOND TYP. STEP ASSUMED = 0.7'; LOWEST FLOOR ELEVATION (LOW OPENING FOR WO); REAR ELEVATION (LOW OPENING FOR LO AND FB)
- (S.30%) — PROPOSED DRIVEWAY GRADE FROM SETBACK TO ROW
- 789 — EXISTING CONTOUR
- 789 — PROPOSED CONTOUR
- 62.4 x962.44 — PROPOSED SPOT ELEVATION
- TW XXX / BW XXX — TOP OF WALL ELEVATION; BOTTOM OF WALL ELEVATION
- DIRECTION OF DRAINAGE
- F — FULL BASEMENT
- L — LOOK OUT
- W — WALK OUT
- SOG — SLAB ON GRADE
- EOF:726.86 — EMERGENCY OVERFLOW ROUTING AND ELEVATAION
- EMERGENCY OVERFLOW ROUTING
- EXISTING TREE TO REMAIN
- PROPOSED DISTURBANCE LIMITS
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- PROPOSED EASEMENT
- PROPERTY LINE
- SETBACK LINE
- LOT LINE
- RIGHT-OF-WAY
- POND MAINTENANCE ACCESS

N

0 100 200 400
SCALE IN FEET

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GRADING AND DRAINAGE PLAN OVERVIEW

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PROJECT TEAM DATA

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DRAWN:	LRJ
PROJECT NO:	223-0166

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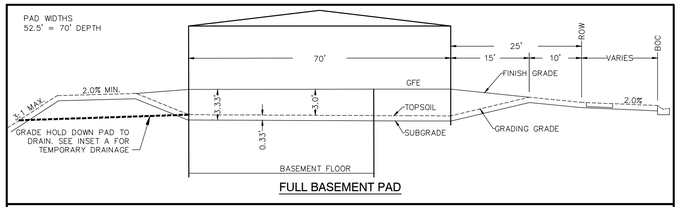
SHEET 32 of 110

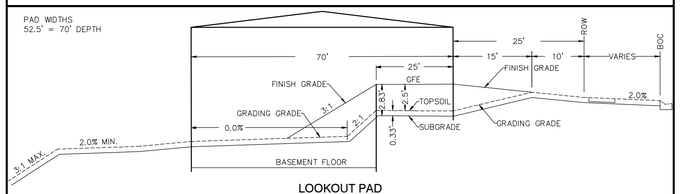
Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166grad.dwg Dec 20, 2023 - 4:20pm
SHOWN SIZE:

65' LOT HOLD DOWN DETAILS

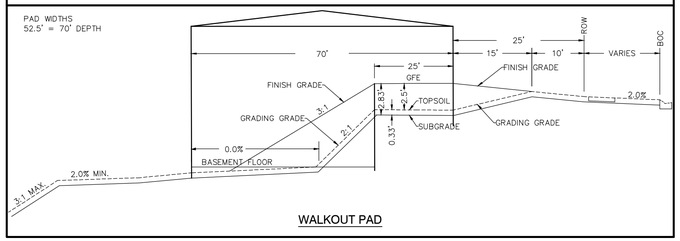
NOT TO SCALE



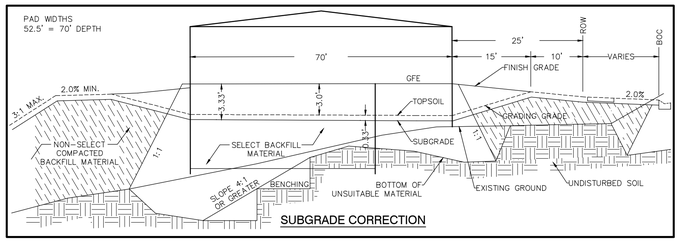
FULL BASEMENT PAD



LOOKOUT PAD



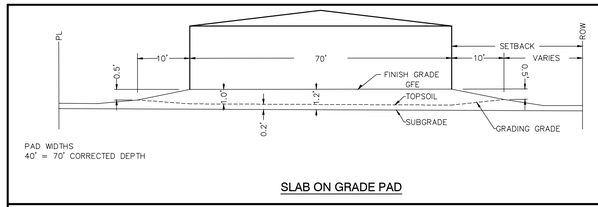
WALKOUT PAD



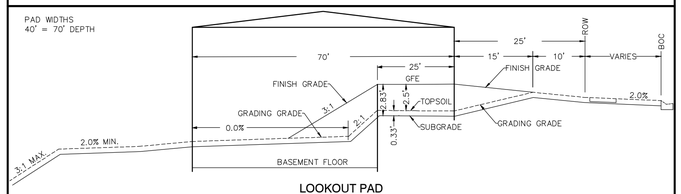
SUBGRADE CORRECTION

52.5' LOT HOLD DOWN DETAILS

NOT TO SCALE



SLAB ON GRADE PAD



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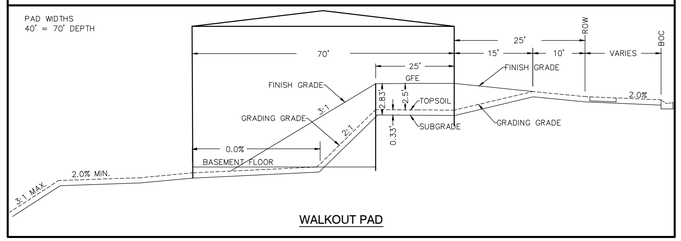

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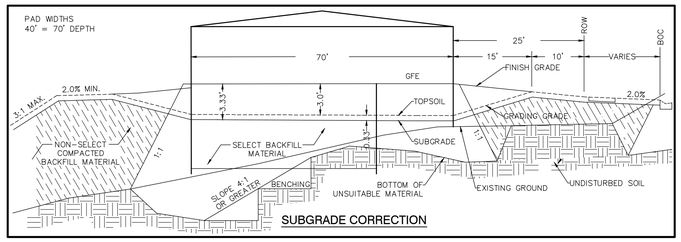
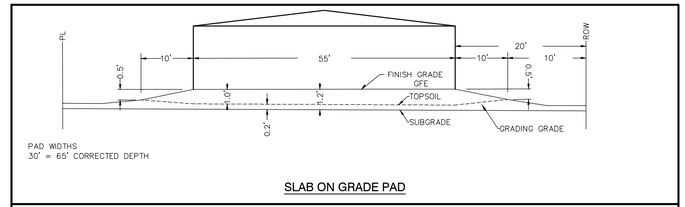


SUBGRADE CORRECTION

40' LOT HOLD DOWN DETAILS

NOT TO SCALE



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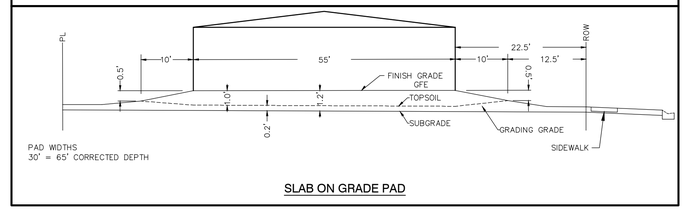
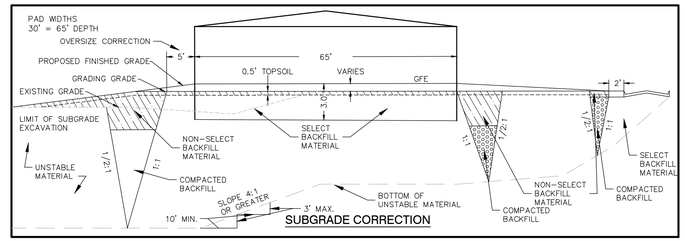
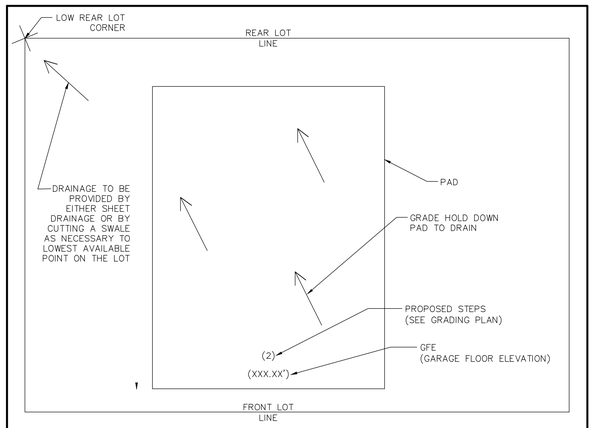


SLAB ON GRADE PAD



SUBGRADE CORRECTION

LOT GRADING DETAIL



PLAN VIEW: FULL BASEMENT

INSET A

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GRADING NOTES AND DETAILS

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SHEET 33 of 110

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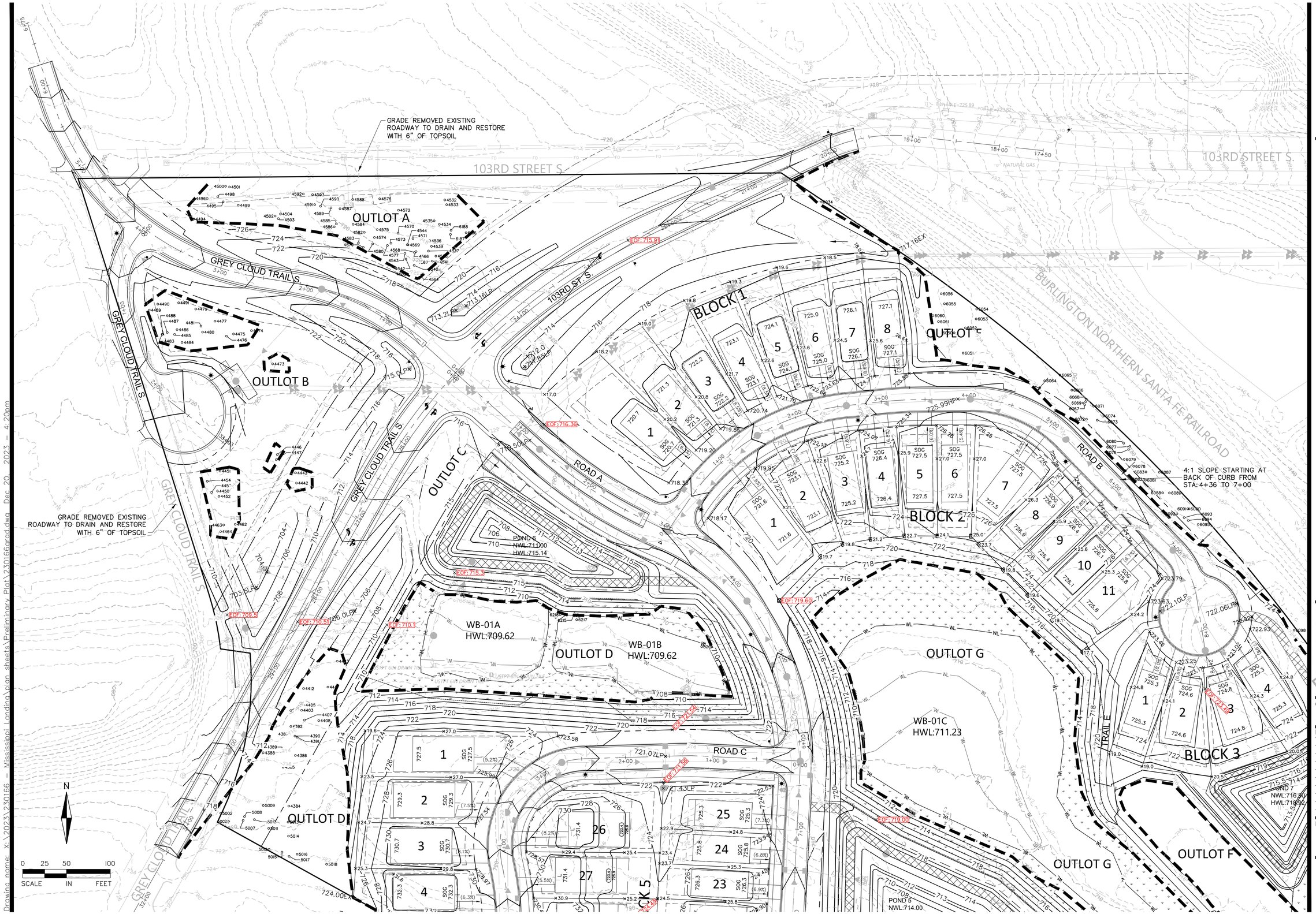

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PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW A

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MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: LRJ

PROJECT NO: 223-0166

N

0 25 50 100
SCALE IN FEET

OUTLOT D

GREY CLOUD TRAIL

ROAD C

ROAD H

ROAD D

ROAD E

BLOCK 4

BLOCK 5

POND 5
NWL:714
HWL:718

EXISTING WOODED AREA TO REMAIN AND DRAIN AS EXISTING

EXISTING WOODED AREA TO REMAIN AND DRAIN AS EXISTING

EXISTING WOODED AREA TO REMAIN AND DRAIN AS EXISTING

EXISTING WOODED AREA TO REMAIN AND DRAIN AS EXISTING

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW B

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Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

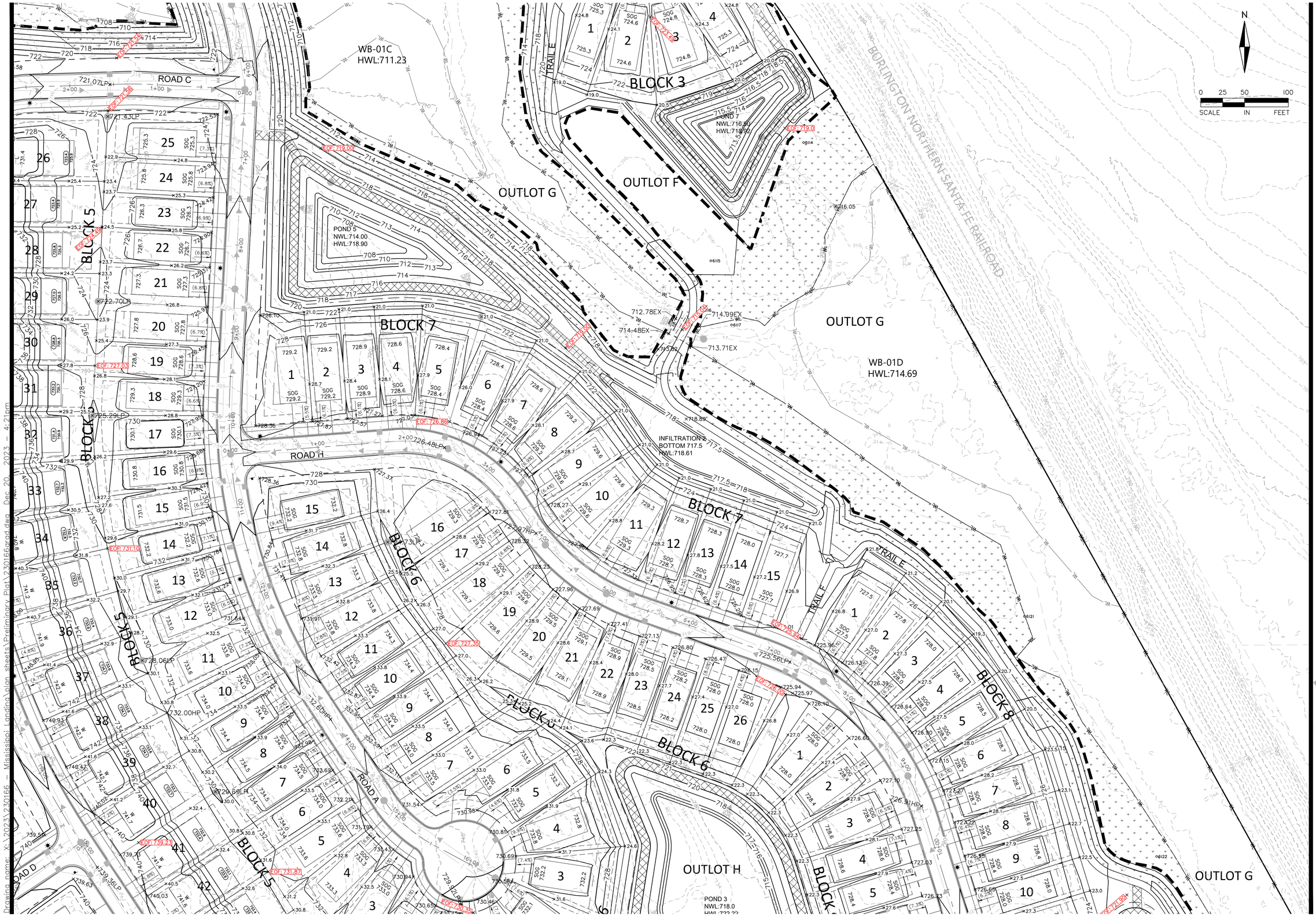
PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

35

SHEET 35 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166grad.dwg Dec 20, 2023 - 4:21pm



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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW C

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Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

36

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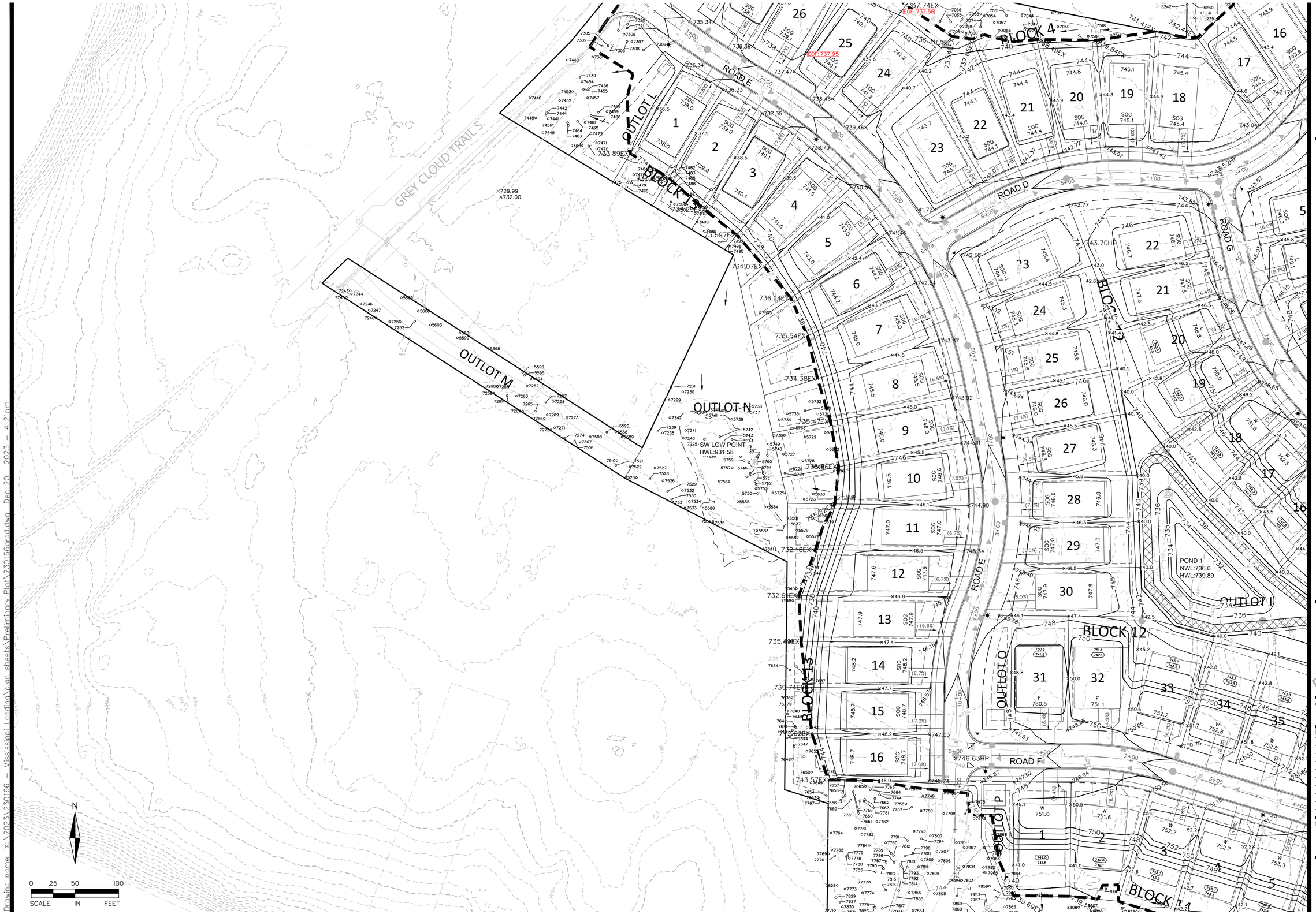

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW D

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Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

37

SHEET 37 of 110

Drawing name: X:\2023\23016 - Mississippi Landing\plan sheets\Preliminary Plat\23016grad.dwg Dec 20, 2023 - 4:21pm

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PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW E

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QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

38

SHEET 38 of 110

N

0 25 50 100
SCALE IN FEET

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166grad.dwg Dec 20, 2023 - 4:21pm

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MISSISSIPPI LANDING
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PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW F

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

39

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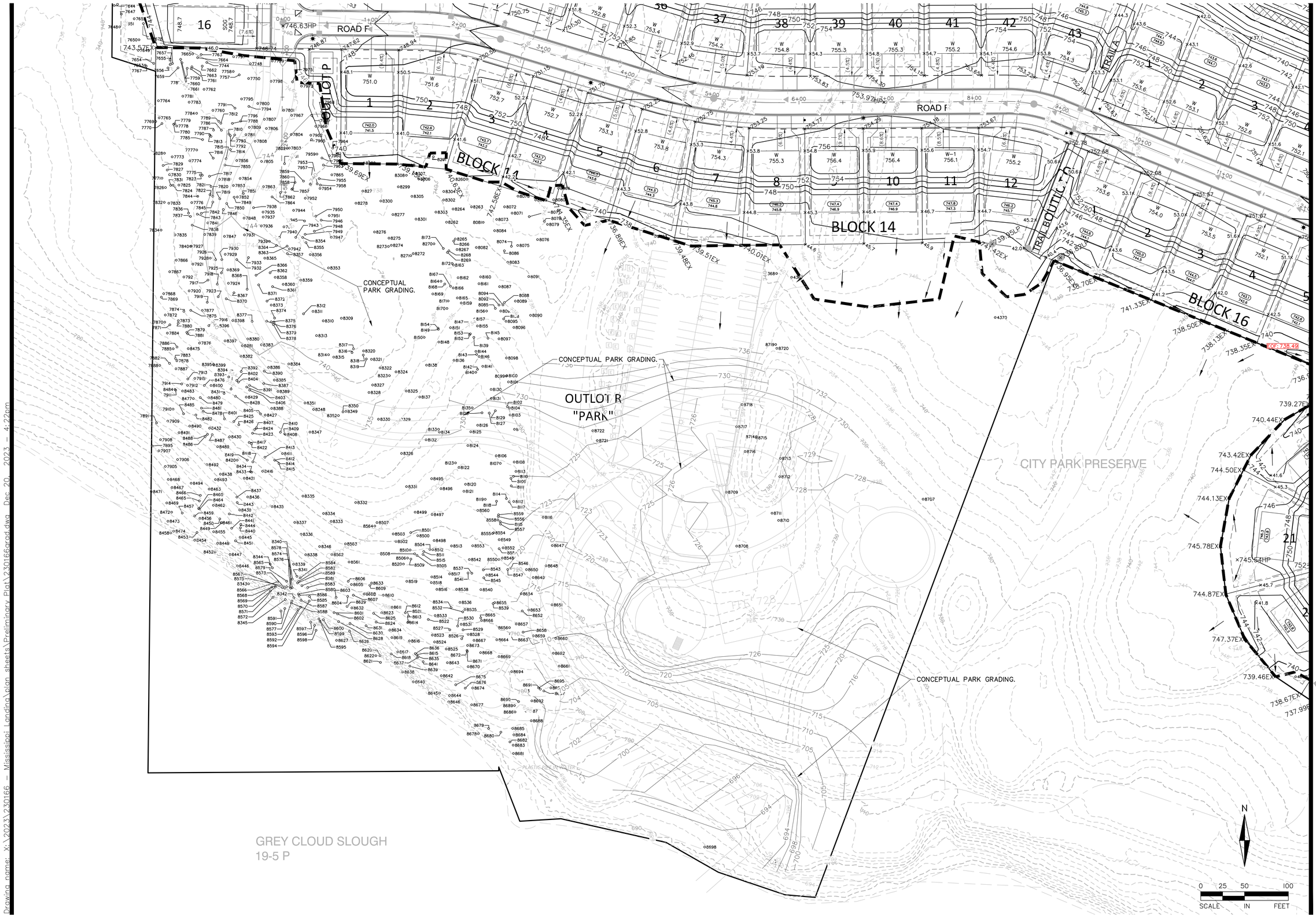

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

GRADING AND DRAINAGE PLAN VIEW G

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DATE	ISSUE
12-20-23	CITY SUBMITTAL

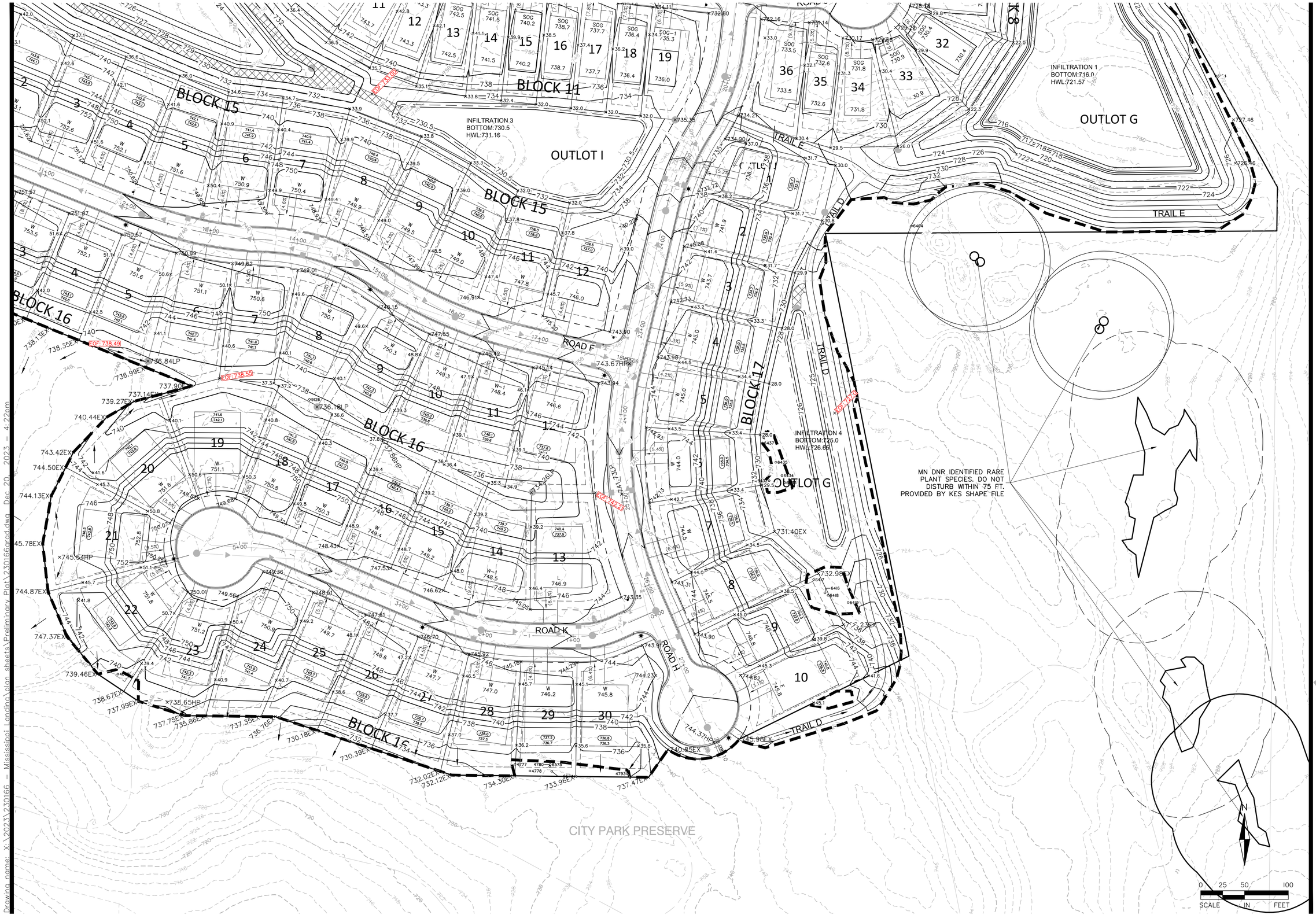
PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

40

SHEET 40 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166grad.dwg Dec 20, 2023 - 4:22pm



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MISSISSIPPI LANDING

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GRADING AND DRAINAGE PLAN VIEW H

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PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

41

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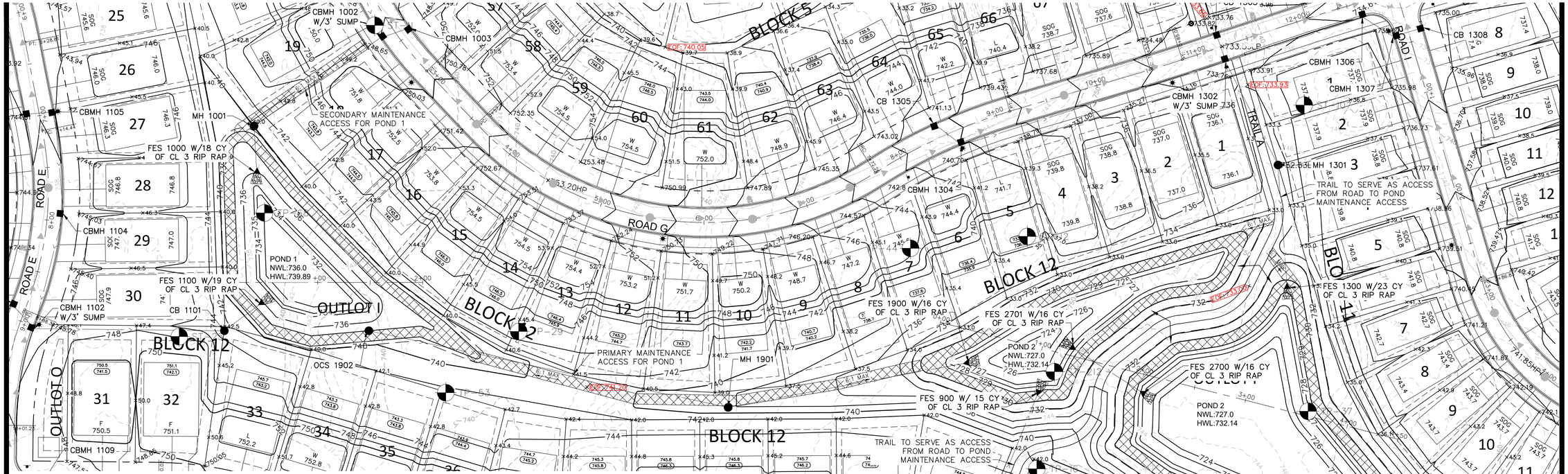


LEGEND:

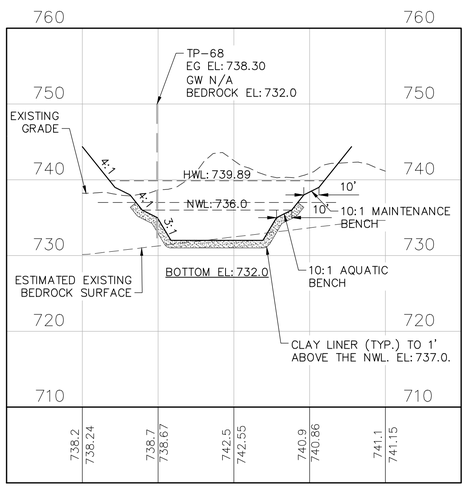
- EASEMENT LINE
- LOT LINE
- ROW
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- MAINTENANCE ACCESS ROUTE
- EXISTING SOIL BORING

POND NOTES:

1. POND SHALL CONFORM TO CITY STANDARD DETAIL STO-15
2. A CLAY LINER SHALL BE PROVIDED ALONG THE POND BOTTOM UP TO 1' ABOVE THE NWL.THE LINER SHALL BE INSTALLED PER CITY OF COTTAGE GROVE STANDARDS FOR THICKNESS AND SPECIFICATION.
3. CONTRACTOR SHALL WORK WITH THE GEOTECHNICAL ENGINEER FOR ALL ROCK REMOVAL AND ASSURE LINER MATERIAL IS SATISFACTORILY IMPERMEABLE.

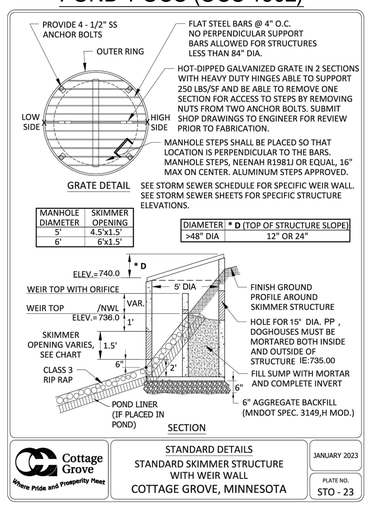
N

0 25 50 100
SCALE IN FEET



POND 1 PROFILE

POND 1 OCS (OCS 1902)



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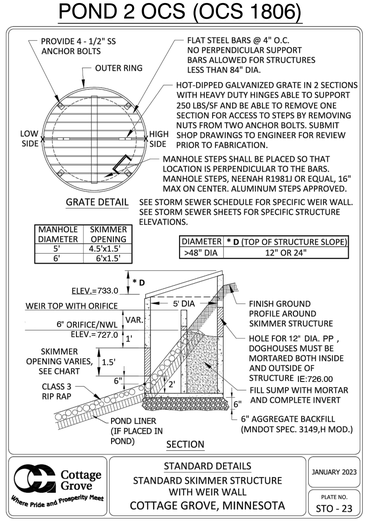

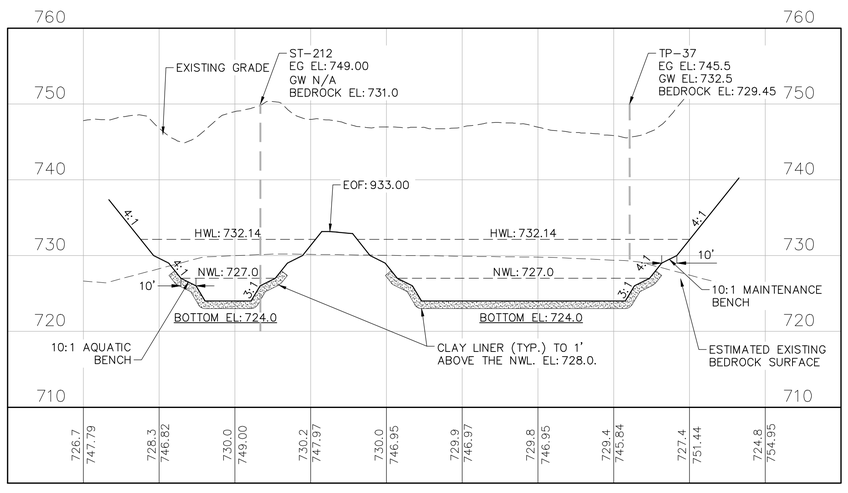

POND 2 PROFILE

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MISSISSIPPI LANDING
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PRELIMINARY PLAT AND PUD PLAN
POND 1 AND POND 2 PROFILES AND DETAILS

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TOWN SIZE1

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Date License No.

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QUALITY ASSURANCE/CONTROL

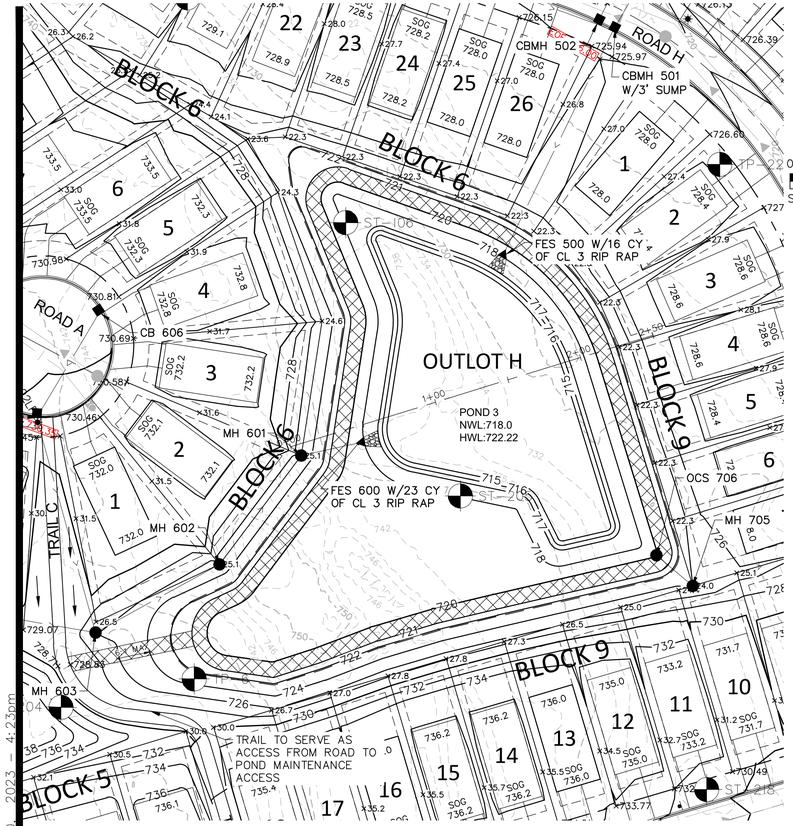
BY DATE

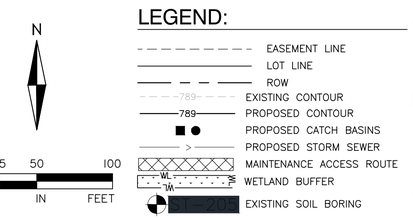
DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166pond.dwg Dec 20, 2023 - 4:23pm





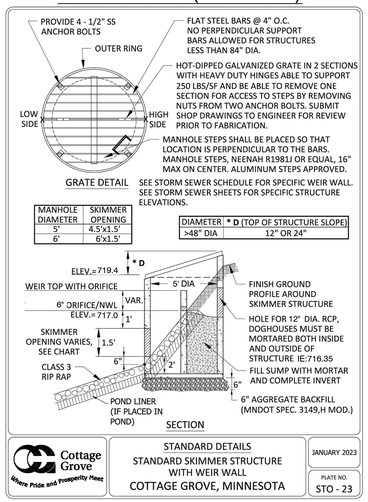
LEGEND:

- EASEMENT LINE
- LOT LINE
- ROW
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- MAINTENANCE ACCESS ROUTE
- WETLAND BUFFER
- EXISTING SOIL BORING

POND NOTES:

1. POND SHALL CONFORM TO CITY STANDARD DETAIL STO-15
2. A CLAY LINER SHALL BE PROVIDED ALONG THE POND BOTTOM UP TO 1' ABOVE THE NWL. THE LINER SHALL BE INSTALLED PER CITY OF COTTAGE GROVE STANDARDS FOR THICKNESS AND SPECIFICATION.
3. CONTRACTOR SHALL WORK WITH THE GEOTECHNICAL ENGINEER FOR ALL ROCK REMOVAL AND ASSURE LINER MATERIAL IS SATISFACTORILY IMPERMEABLE.

POND 7 OCS (OCS 2001)

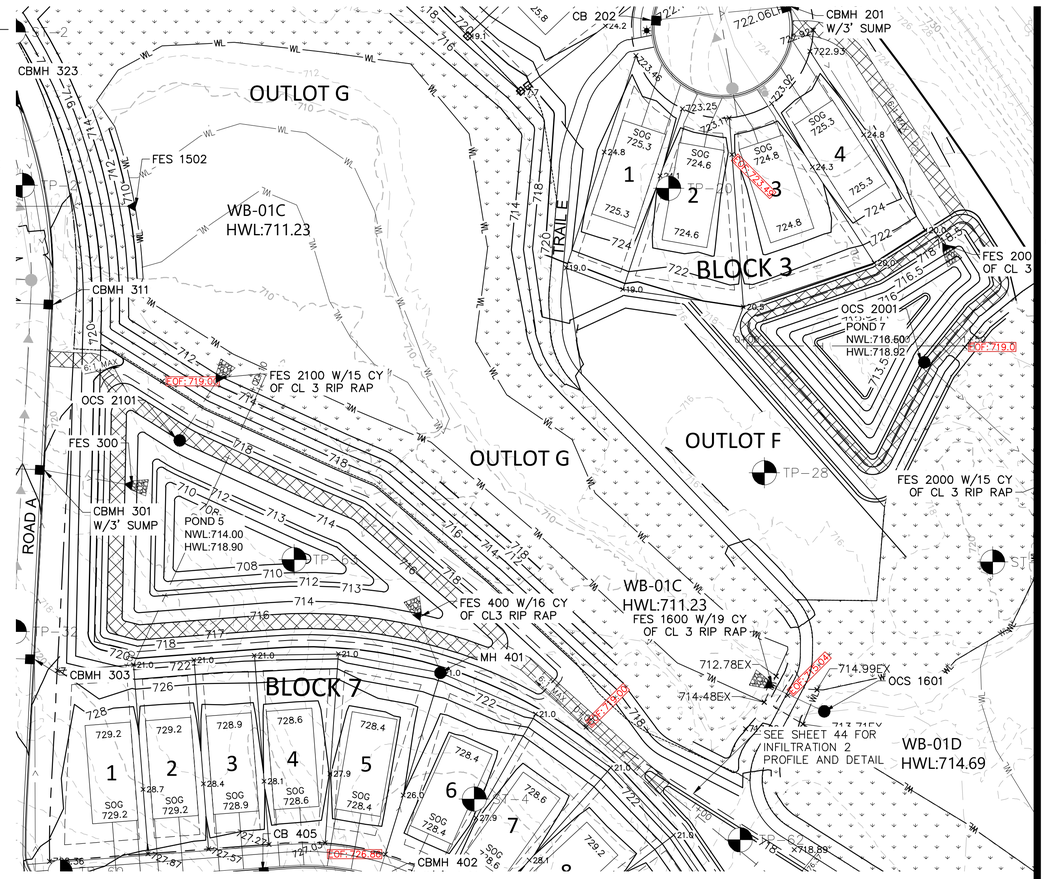


Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
STANDARD SKIMMER STRUCTURE WITH WEIR WALL
COTTAGE GROVE, MINNESOTA

JANUARY 2023
PLATE NO. STO - 23

48_STO23.DWG



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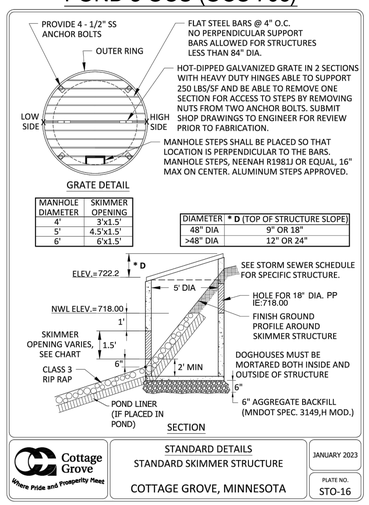


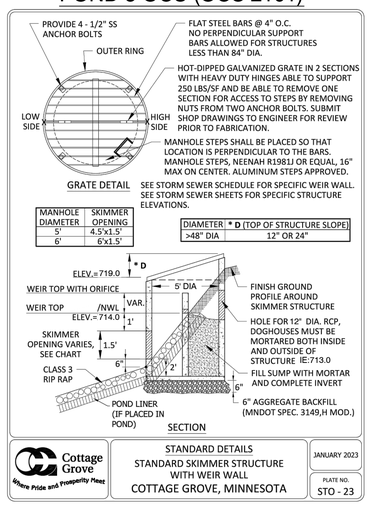
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
STANDARD SKIMMER STRUCTURE
COTTAGE GROVE, MINNESOTA

JANUARY 2023
PLATE NO. STO-16

48_STO16.DWG

POND 5 OCS (OCS 2101)



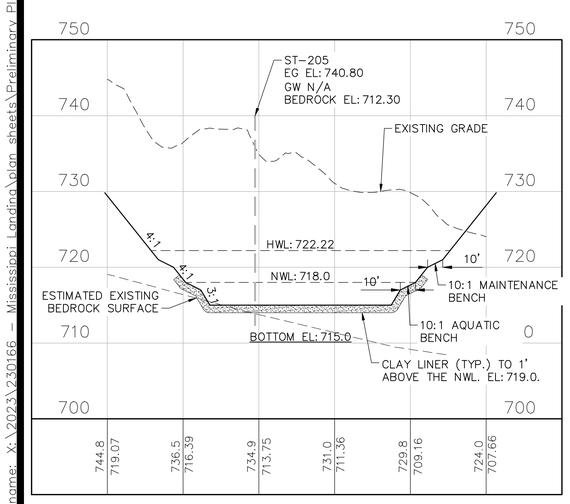
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
STANDARD SKIMMER STRUCTURE WITH WEIR WALL
COTTAGE GROVE, MINNESOTA

JANUARY 2023
PLATE NO. STO - 23

48_STO23.DWG

POND 3 PROFILE



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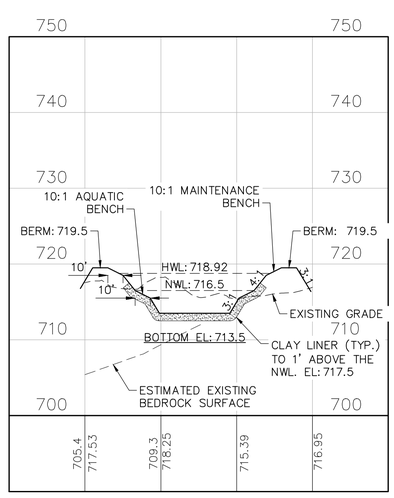

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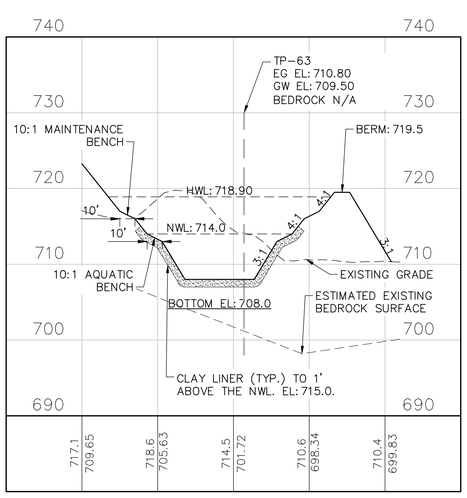

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

POND 3, POND 5, AND POND 7 PROFILES AND DETAILS

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MARK R. USCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

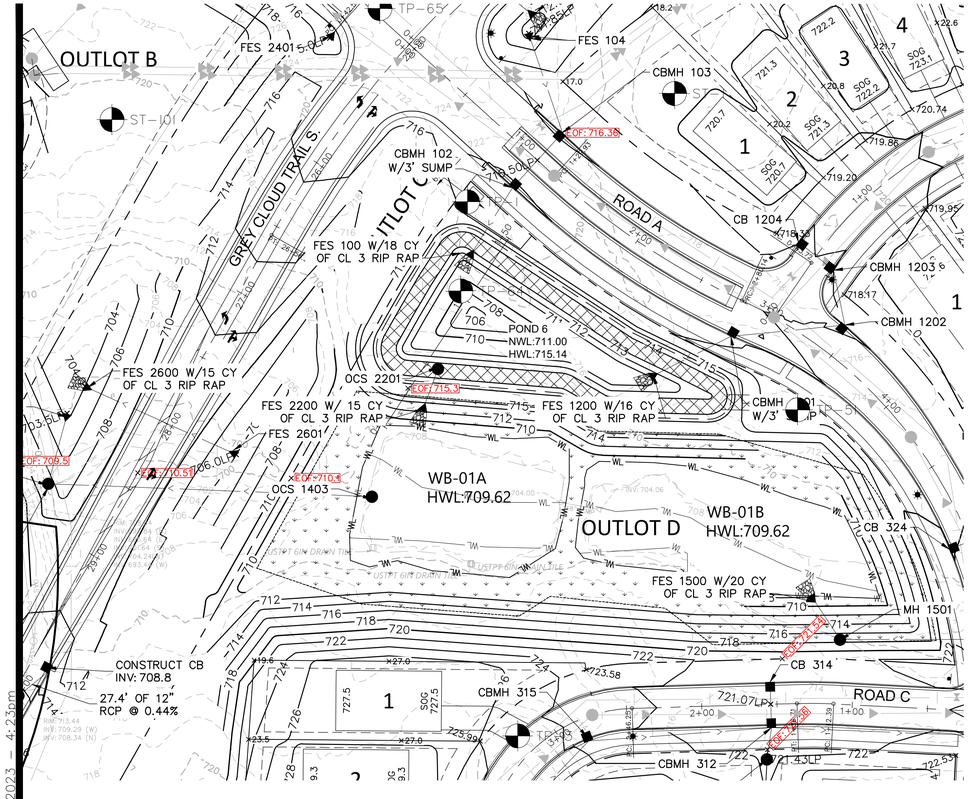
PROJECT TEAM DATA

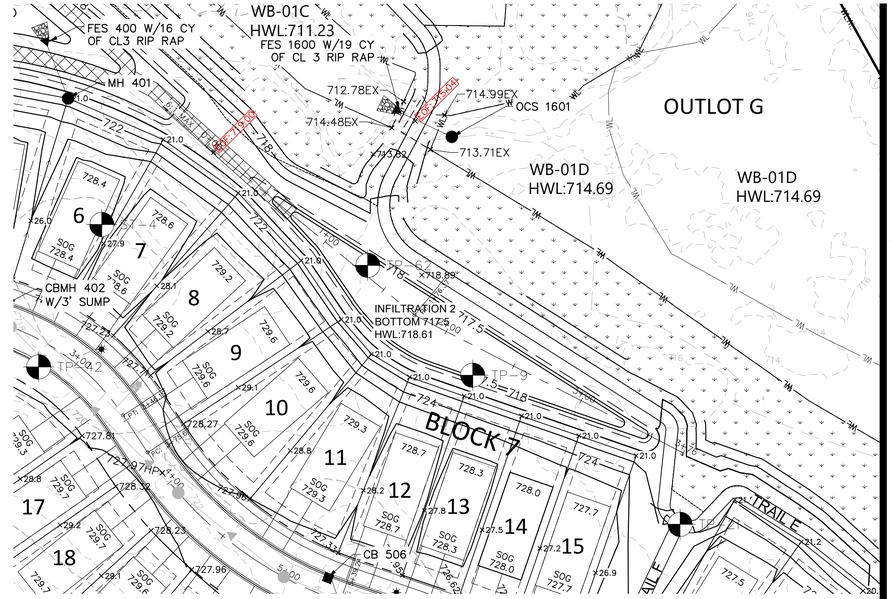
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

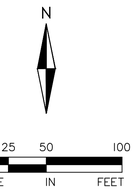
43

SHEET 43 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166pond.dwg Dec 20, 2023 - 4:23pm

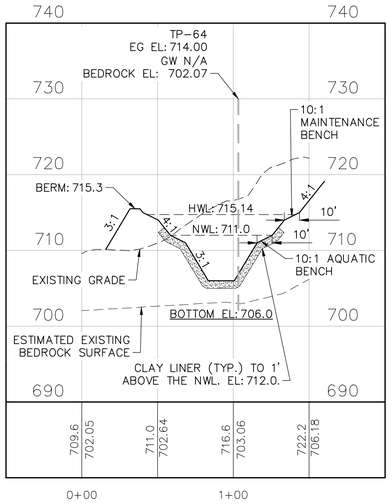






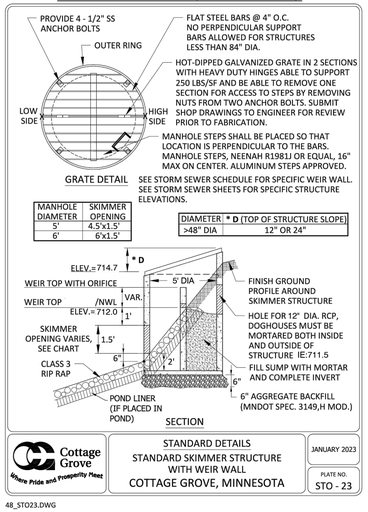
LEGEND:

- EASEMENT LINE
- LOT LINE
- ROW
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- MAINTENANCE ACCESS ROUTE
- WETLAND BUFFER
- EXISTING SOIL BORING



POND 6 PROFILE

POND 6 OCS (OCS 1403)

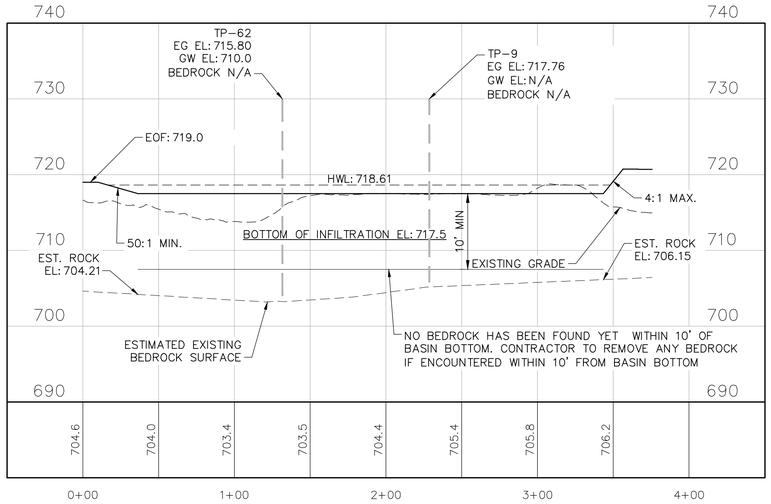


POND NOTES:

1. POND SHALL CONFORM TO CITY STANDARD DETAIL STO-15
2. A CLAY LINER SHALL BE PROVIDED ALONG THE POND BOTTOM UP TO 1' ABOVE THE NWL.THE LINER SHALL BE INSTALLED PER CITY OF COTTAGE GROVE STANDARDS FOR THICKNESS AND SPECIFICATION.
3. CONTRACTOR SHALL WORK WITH THE GEOTECHNICAL ENGINEER FOR ALL ROCK REMOVAL AND ASSURE LINER MATERIAL IS SATISFACTORILY IMPERMEABLE.

INFILTRATION BASIN NOTES:

1. ALL TEMPORARY EROSION CONTROL DEVICES MUST BE INSTALLED PRIOR TO INSTALLATION/CONSTRUCTION OF INFILTRATION BASINS
2. ALL STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM INFILTRATION AREA TO TEMPORARY SEDIMENT TRAP UNTIL BASIN IS COMPLETELY GRADED AND PLANTED
3. CONSTRUCTION OF BASIN SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR COMPACTION.
4. COMPACTION AND SPEARING OF THE SOILS BENEATH THE FLOOR AND SIDE SLOPES OF THE INFILTRATION BASIN AREA SHALL BE MINIMIZED.
5. THE INFILTRATION FACILITY SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. THE FINAL PHASE OF EXCAVATION SHALL REMOVE ALL ACCUMULATED SEDIMENT.
6. BASIN BOTTOM SHALL BE AT LEAST 10' ABOVE EXISTING BEDROCK. BEDROCK MUST BE EXCAVATED IF LOCATED WITHIN 10' OF THE BASIN. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER AND PROJECT CIVIL ENGINEER IF ROCK IS ENCOUNTERED BEYOND WHAT IS DEPICTED IN THESE PLANS.
7. POST CONSTRUCTION TESTING OF THE INFILTRATION RATE AND DRAWDOWN PERIOD WILL BE REQUIRED.



INFILTRATION 2 PROFILE

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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
POND 6 AND INFILTRATION 2 PROFILES AND DETAILS

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PRELIMINARY NOT FOR CONSTRUCTION

MARK R. RUSCH, PE
Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
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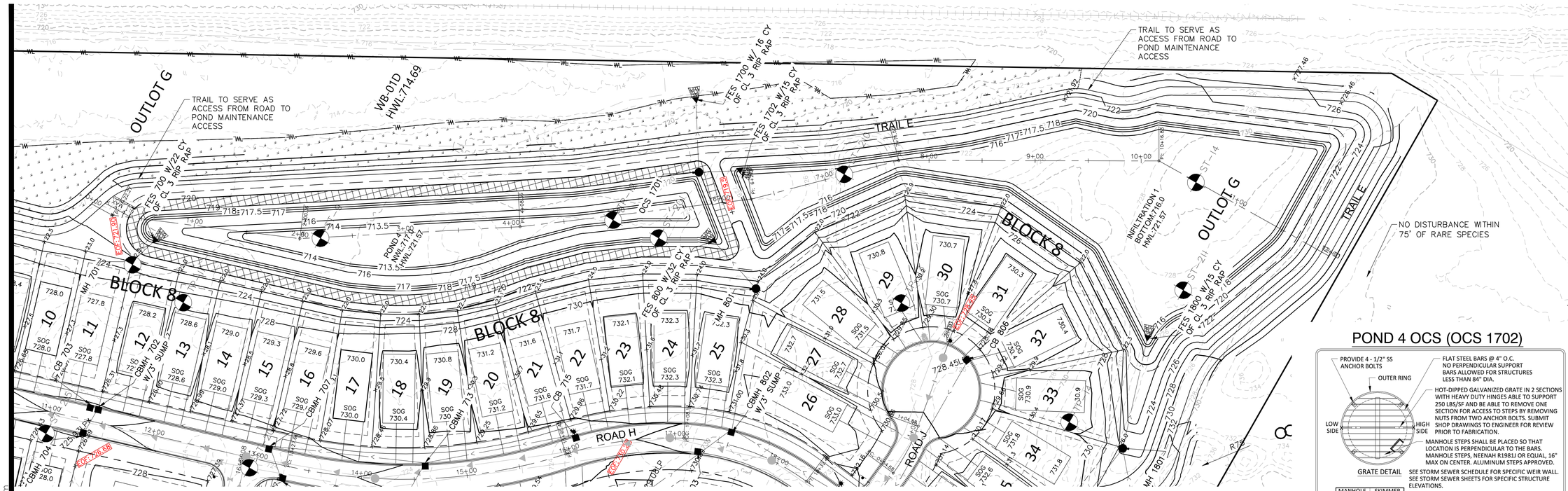
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

44

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166pond.dwg Dec 20, 2023 - 4:23pm



POND NOTES:

1. POND SHALL CONFORM TO CITY STANDARD DETAIL STO-15
2. A CLAY LINER SHALL BE PROVIDED ALONG THE POND BOTTOM UP TO 1' ABOVE THE NWL.THE LINER SHALL MEET GUIDELINES SET BY THE CITY OF COTTAGE GROVE, THE MPCA STORMWATER PERMIT, AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER
3. CONTRACTOR SHALL WORK WITH THE GEOTECHNICAL ENGINEER FOR ALL ROCK REMOVAL AND ASSURE LINER MATERIAL IS SATISFACTORILY IMPERMEABLE.

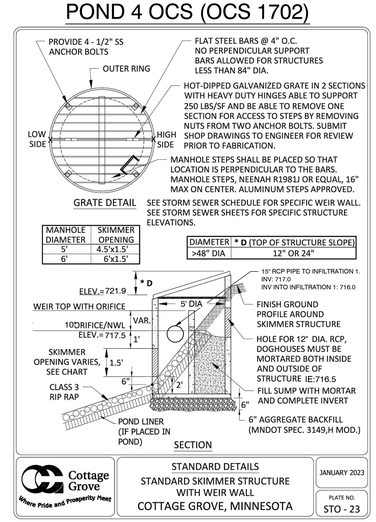
INFILTRATION BASIN NOTES:

1. ALL TEMPORARY EROSION CONTROL DEVICES MUST BE INSTALLED PRIOR TO INSTALLATION/CONSTRUCTION OF INFILTRATION BASINS
2. ALL STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM INFILTRATION AREA TO TEMPORARY SEDIMENT TRAP UNTIL BASIN IS COMPLETELY GRADED AND PLANTED
3. CONSTRUCTION OF BASIN SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR COMPACTION.
4. COMPACTION AND SPEARING OF THE SOILS BENEATH THE FLOOR AND SIDE SLOPES OF THE INFILTRATION BASIN AREA SHALL BE MINIMIZED.
5. THE INFILTRATION FACILITY SHALL NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED. THE FINAL PHASE OF EXCAVATION SHALL REMOVE ALL ACCUMULATED SEDIMENT.
6. BASIN BOTTOM SHALL BE AT LEAST 10' ABOVE EXISTING BEDROCK. BEDROCK MUST BE EXCAVATED IF LOCATED WITHIN 10' OF THE BASIN. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER AND PROJECT CIVIL ENGINEER IF ROCK IS ENCOUNTERED BEYOND WHAT IS DEPICTED IN THESE PLANS.
7. POST CONSTRUCTION TESTING OF THE INFILTRATION RATE AND DRAWDOWN PERIOD WILL BE REQUIRED.

LEGEND:

- EASEMENT LINE
- LOT LINE
- ROW
- 789 EXISTING CONTOUR
- 789 PROPOSED CONTOUR
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- MAINTENANCE ACCESS ROUTE
- WETLAND BUFFER
- ST-205 EXISTING SOIL BORING

POND 4 OCS (OCS 1702)



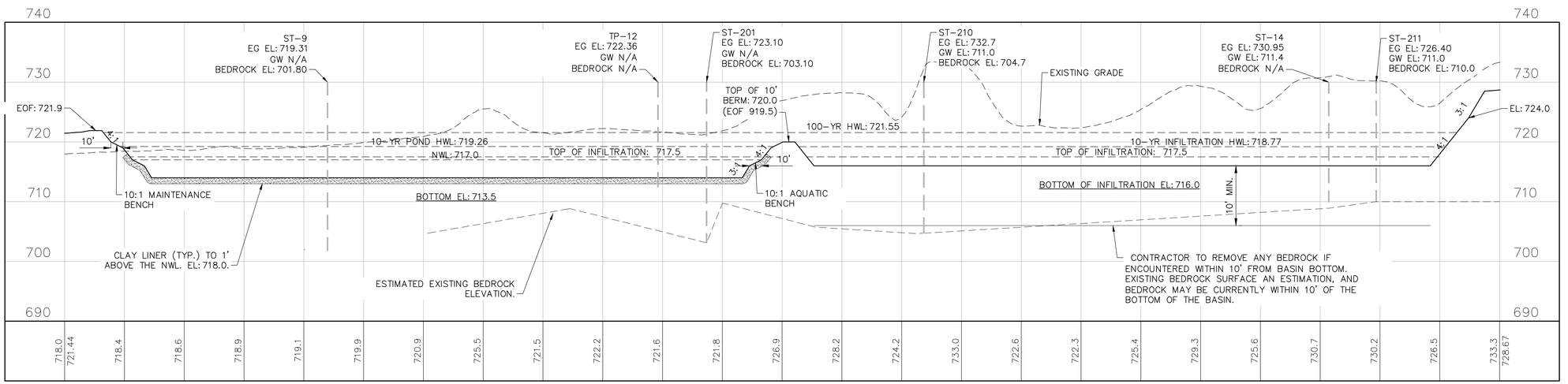
Cottage Grove — Where Pride and Prosperity Meet

STANDARD DETAILS
STANDARD SKIMMER STRUCTURE WITH WEIR WALL
COTTAGE GROVE, MINNESOTA

JANUARY 2023

PLATE NO. STO - 23

48_STO23.DWG



POND 4 AND INFILTRATION 1 PROFILE

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Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
POND 4 AND INFILTRATION 1 PROFILE AND DETAILS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

MARK R. USCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

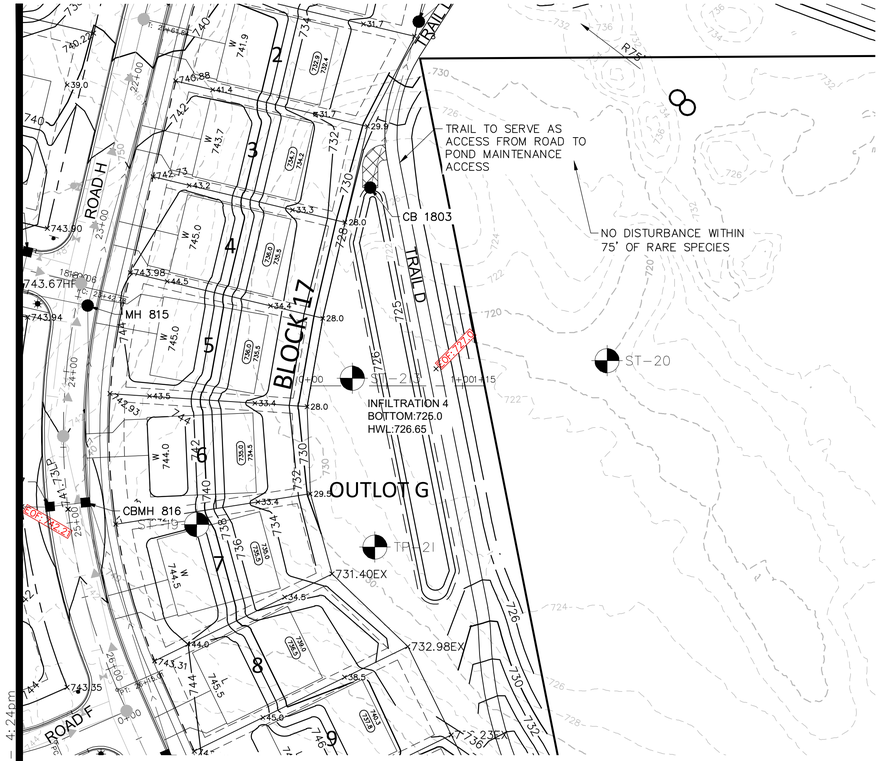
BY DATE

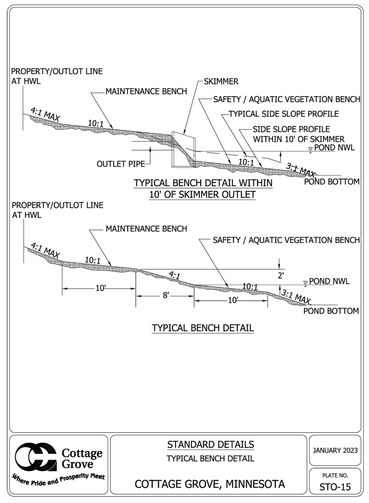
DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

Drawing name: X:\2023\230166 — Mississippi Landing\plan sheets\Preliminary Plat\230166pond.dwg Dec 20, 2023 — 4:24pm





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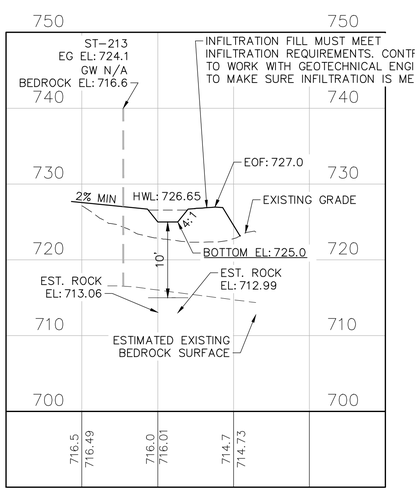
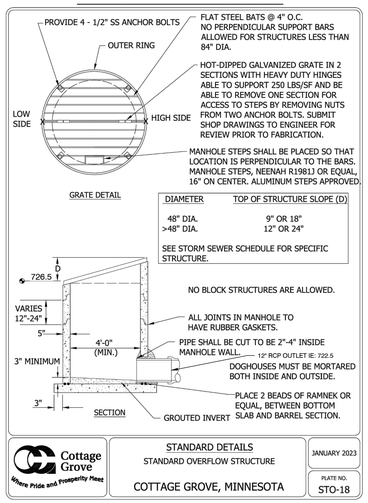


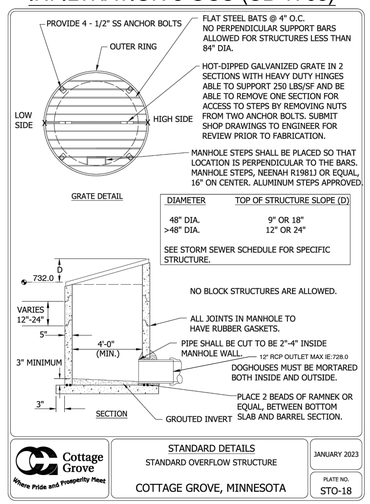
INFILTRATION 3 PROFILE

INFILTRATION 3 OCS



48_STO18.DWG

INFILTRATION 3 OCS (CB 1705)



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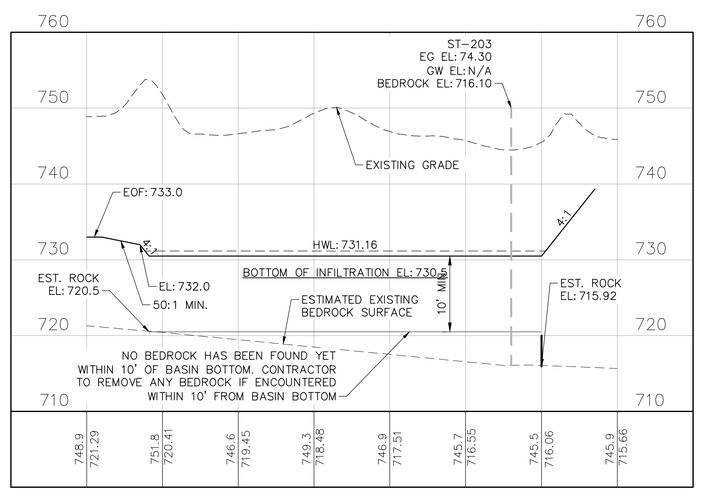

INFILTRATION 3 PROFILE

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COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
INFILTRATION 3 AND INFILTRATION 4 PROFILES AND DETAILS

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PRELIMINARY NOT FOR CONSTRUCTION

MARK R. JUSCH, PE
Date License No.

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PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

46

SHEET 46 of 110

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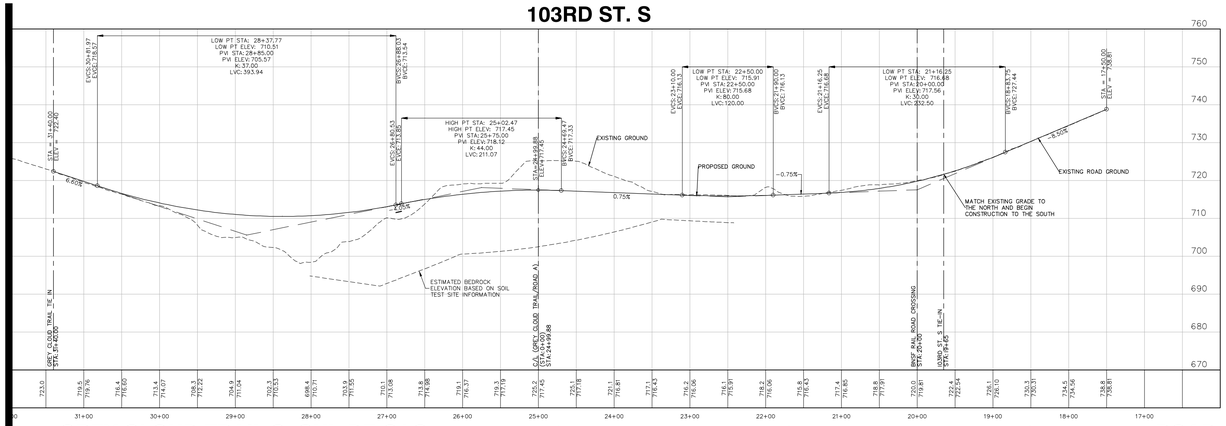
SCALE IN FEET

Drawing name: X:\2023\230166 — Mississippi Landing\plan sheets\Preliminary Plat\230166pond.dwg Dec 20, 2023 - 4:24pm

103RD ST. S



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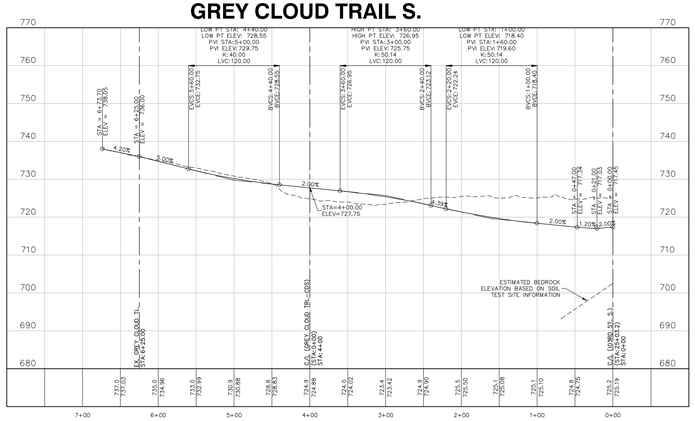

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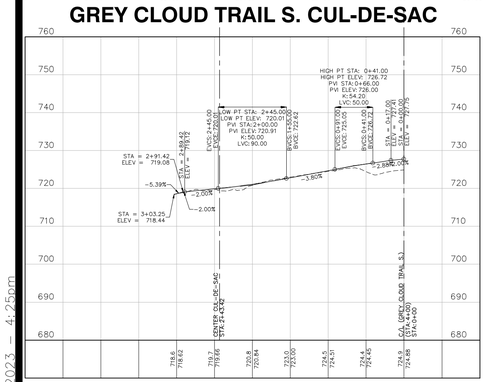

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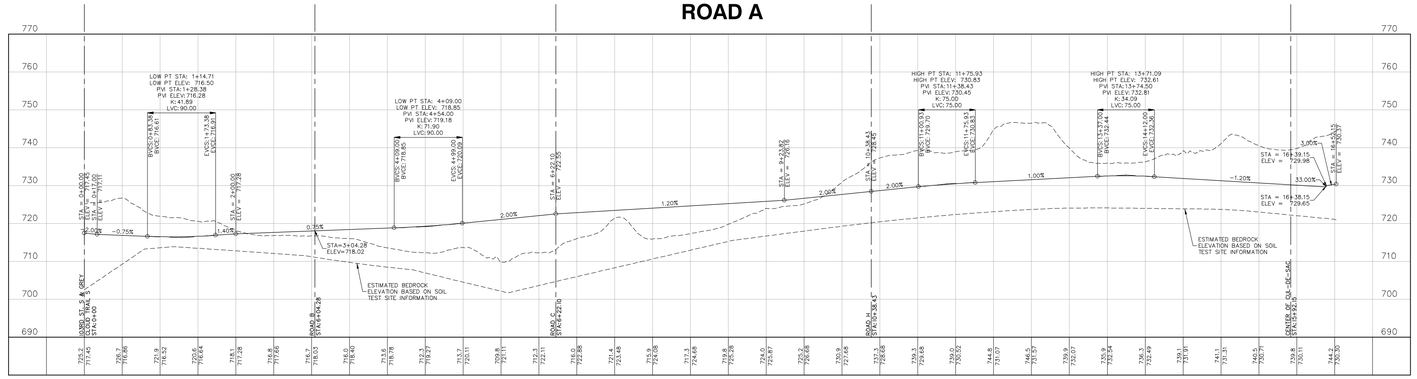

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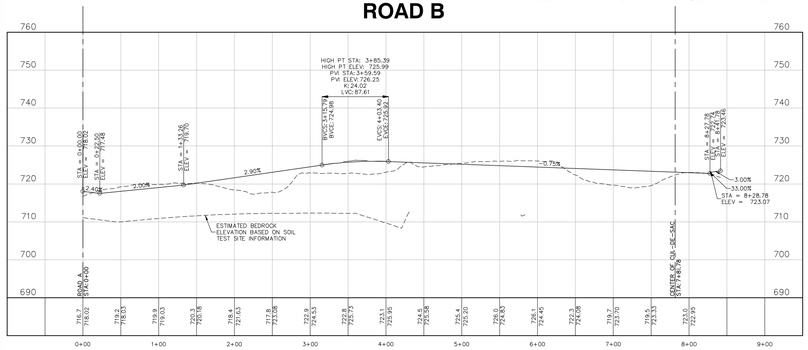

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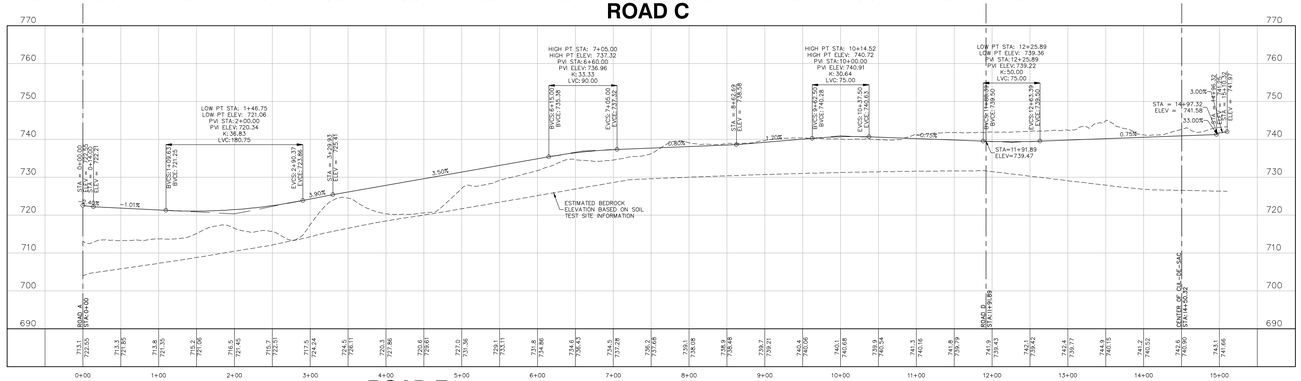

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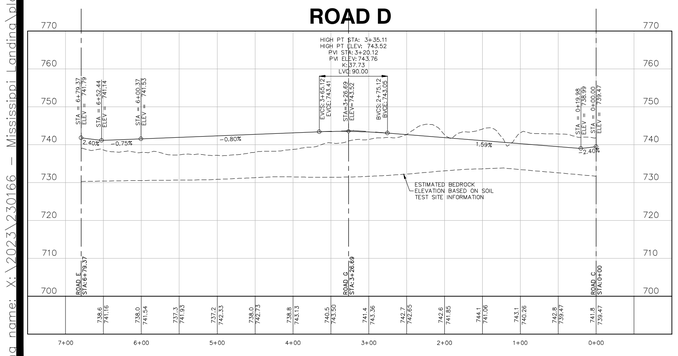

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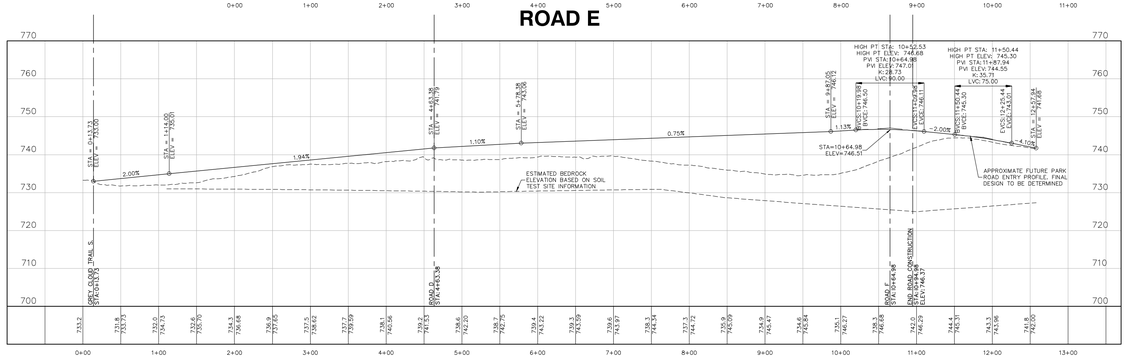

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MISSISSIPPI LANDING
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PRELIMINARY PLAT AND PUD PLAN

GRADING PROFILES

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PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

47

SHEET 47 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166prof.dwg Dec 20, 2023 - 4:25pm

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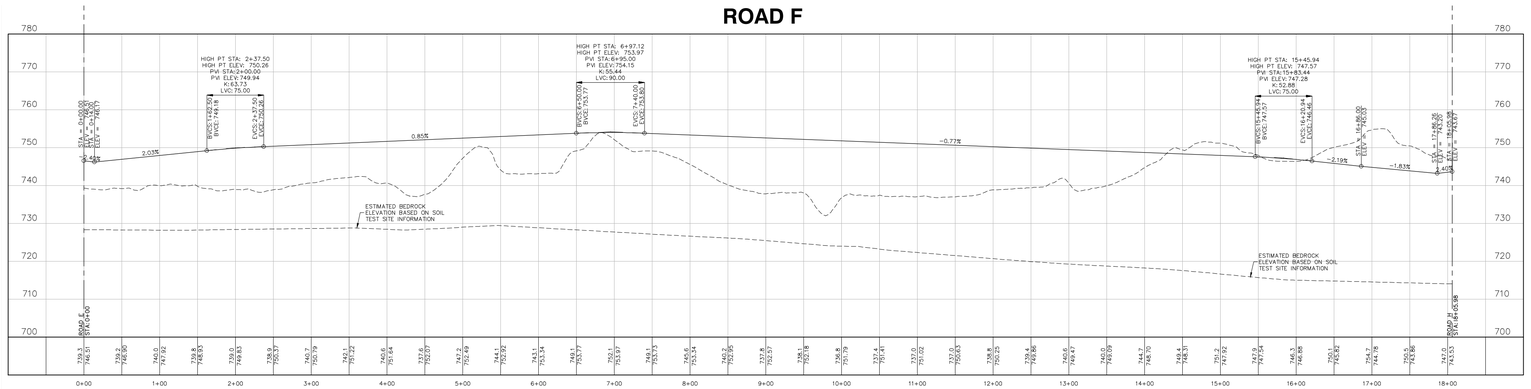

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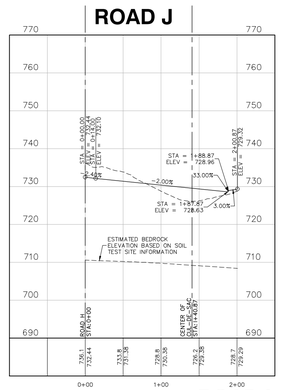

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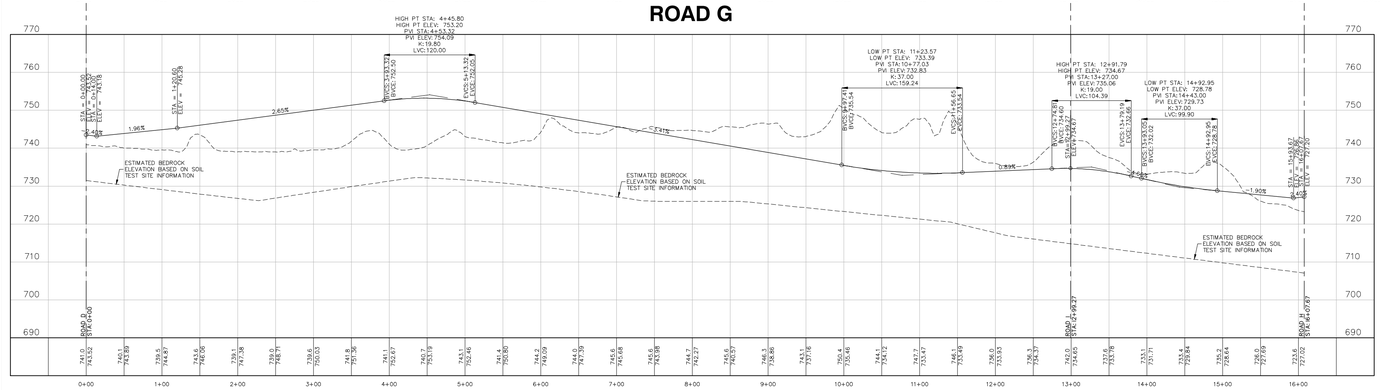

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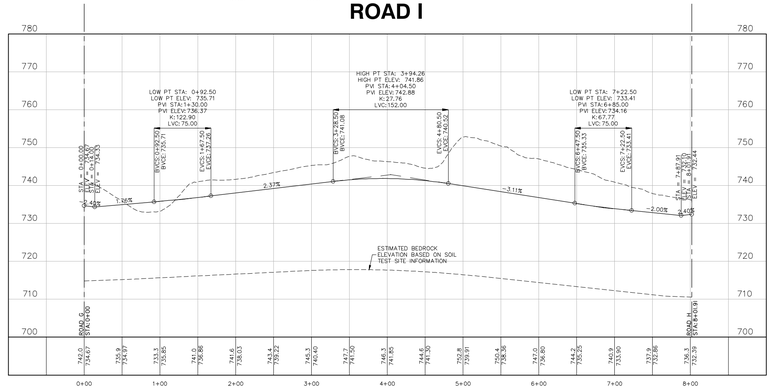

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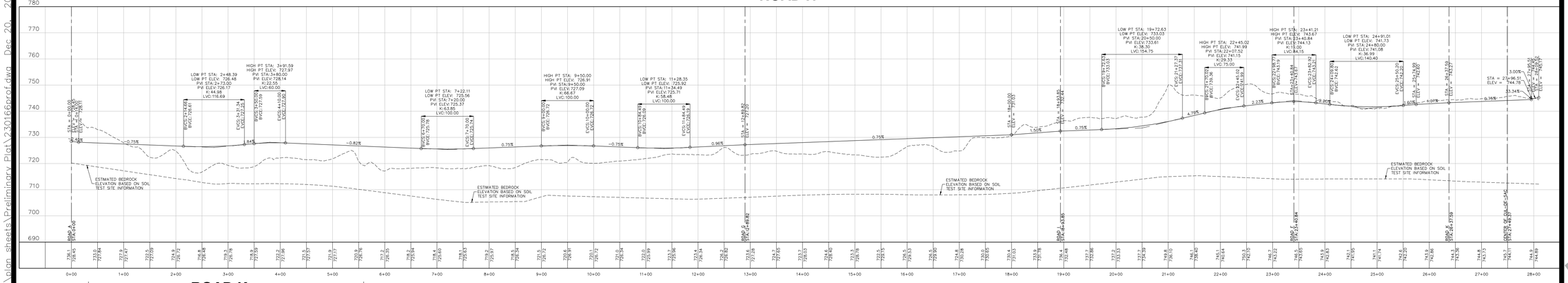

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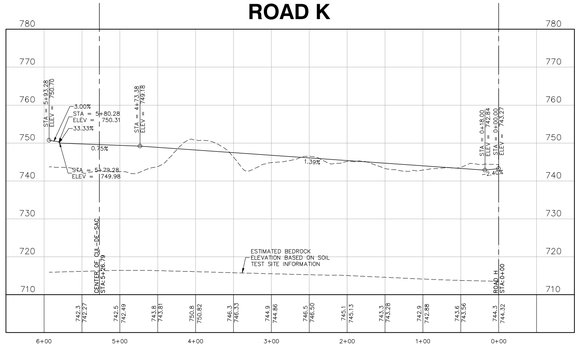

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MISSISSIPPI LANDING
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MARK R. PFUTSCH, P.E.

Date License No.

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BY	DATE

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12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

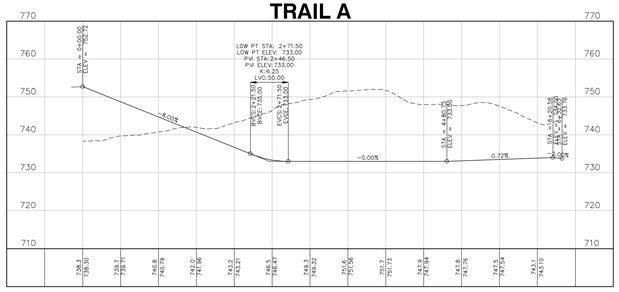
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

48

SHEET 48 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166prof.dwg Dec 20, 2023 - 4:25pm

TRAIL A



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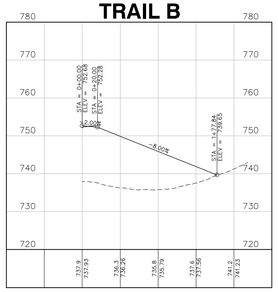

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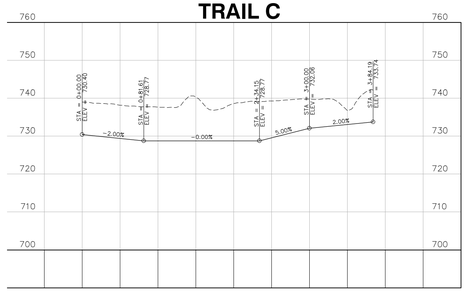

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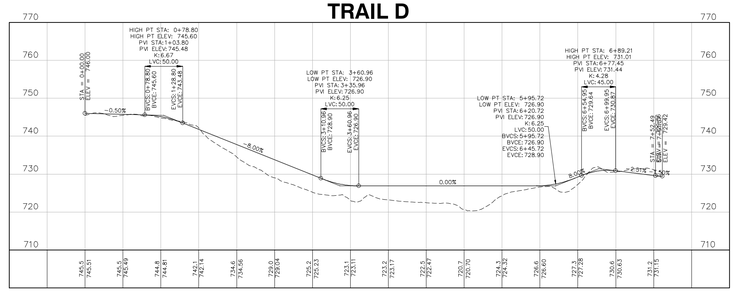

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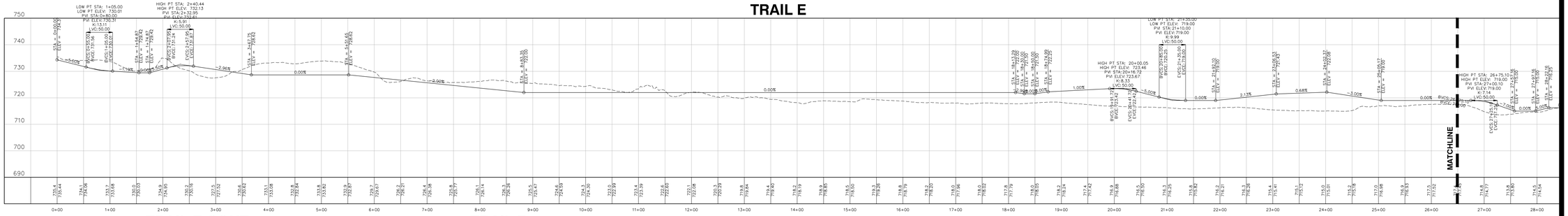

TRAIL E CONT.

TRAIL F

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SCALE IN FEET

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

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PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

49

SHEET 49 of 110

Drawing name: X:\2023\223166 - Mississippi Landing\plan sheets\Preliminary Plat\223166prof.dwg Dec 20, 2023 - 4:26pm

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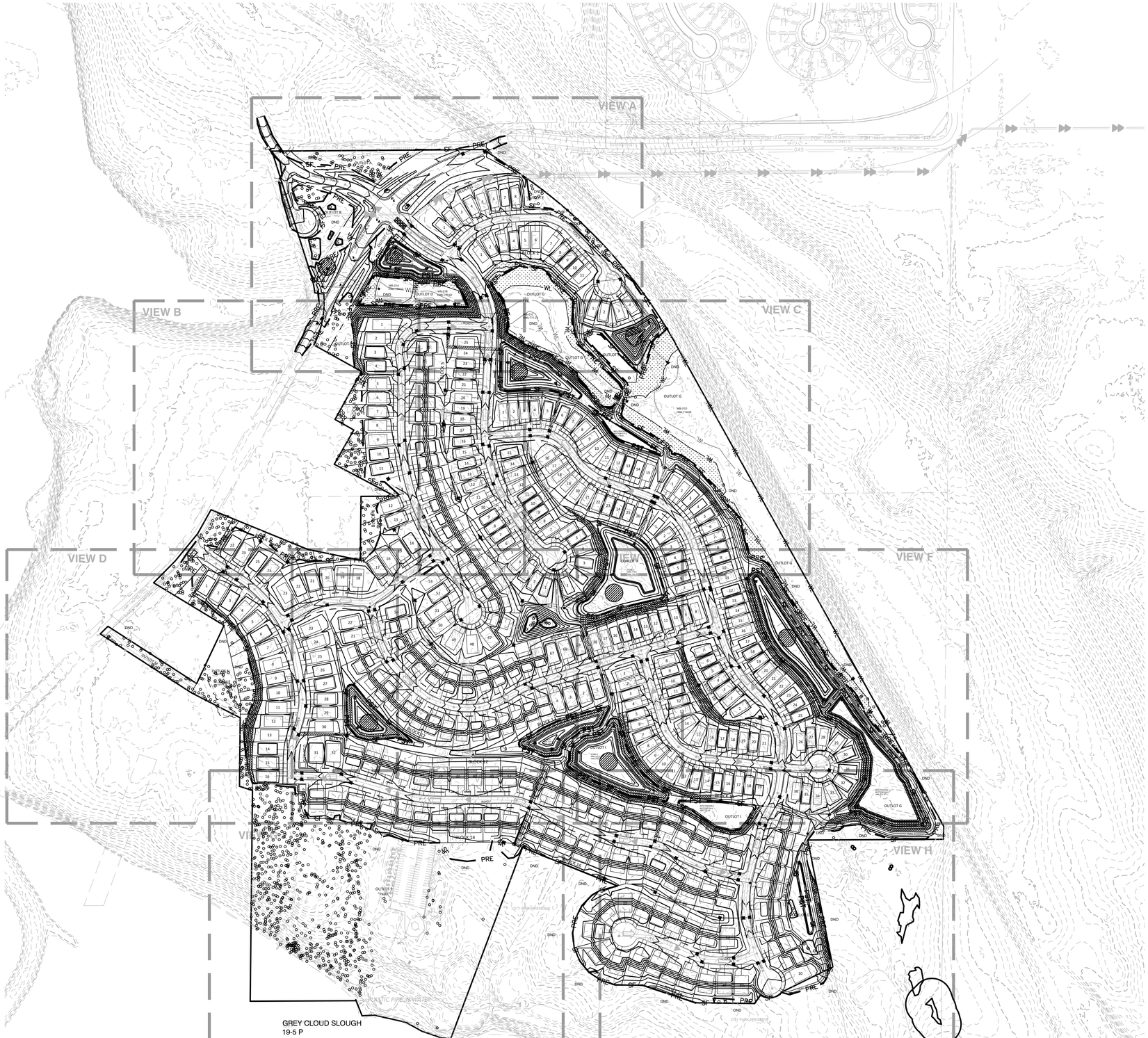


NOTE TO CONTRACTOR:

THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) (EXCEPT FOR POST GRADE BMPS NEEDED AFTER UTILITY CONSTRUCTION ACTIVITY). THE BMPS ARE TO BE INSTALLED AT A MINIMUM AS SHOWN IN THE PLAN, IF CONDITIONS ARISE, ADDITIONAL BMP SUPPLEMENTATION TO PREVENT SITE EROSION OR SEDIMENT TRANSPORT MAY BE NECESSARY. THE MASS GRADING CONTRACTOR IS RESPONSIBLE FOR ALL BMPS REQUIRED TO COMPLETE THE MASS GRADING ACTIVITIES AND SUBSEQUENT TEMPORARY SOIL STABILIZATION NECESSARY TO PREPARE SITE FOR STREET AND UTILITY CONSTRUCTION AND HOME BUILDING. AT THE COMPLETION OF MASS GRADING WORK AND SATISFACTORY SITE SOIL STABILIZATION, THE DEVELOPER AND MASS GRADING CONTRACTOR SHALL COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES TO THE STREET AND UTILITY CONTRACTOR.

THE STREET AND UTILITY CONTRACTOR WILL THEN ASSUME THE RESPONSIBILITY TO PROVIDE INSPECTION AND MAINTENANCE OF ANY IN-PLACE BMPS AS WELL AS INSTALL THE ADDITIONAL BMPS REQUIRED IN THE STREET AND UTILITY CONSTRUCTION DOCUMENT SWPPP. UPON COMPLETION OF STREET AND UTILITY CONSTRUCTION, THE STREET AND UTILITY CONTRACTOR SHALL REMOVE ANY BMPS INSTALLED DURING THE STREET AND UTILITY PHASE THAT ARE NO LONGER REQUIRED AND COORDINATE THE TRANSFER OF NPDES PERMIT RESPONSIBILITIES BACK TO THE DEVELOPER.

SWPPP BMP QUANTITIES:

FINAL BMP QUANTITIES TO BE PROVIDED WITHIN CONSTRUCTION DOCUMENT PLAN SET.

EROSION CONTROL RESPONSIBLE PARTY:

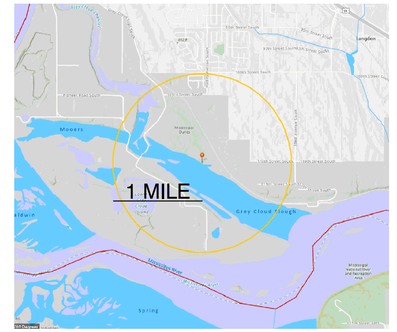
RACHEL CONTRACTING

SITE IMPERVIOUS DATA

PRE-CONSTRUCTION ACRES OF IMPERVIOUS:	8.6 AC
POST-CONSTRUCTION ACRES OF IMPERVIOUS:	43.3 AC
TOTAL NEW IMPERVIOUS SURFACE ACRES:	34.7 AC

NOTES:

1. SEE SHEET 59 FOR ALL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.



VICINITY MAP
NOT TO SCALE

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED RETAINING WALL
- DIRECTION OF DRAINAGE
- PROPOSED CATCH BASINS
- PROPOSED STORM SEWER
- PROPERTY LINE
- LOT LINE
- RIGHT-OF-WAY
- EXISTING VEGETATION LIMITS (APPROX)
- PRE SF — PROPOSED SILT FENCE (PRE GRADING)
- PST SF — PROPOSED SILT FENCE (POST GRADING)
- EXISTING TREE TO REMAIN
- INLET PROTECTION
- BIOROLL
- DND — DO NOT DISTURB AREAS
- TEMPORARY DRAINAGE ROUTING DURING MASS GRADING
- ROCK CONSTRUCTION ENTRANCE
- CATAGORY 3 EROSION CONTROL BLANKET
- DEWATERING TRENCH
- WETLAND BUFFER

N

0 100 200 400
SCALE IN FEET

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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN OVERVIEW

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PRELIMINARY NOT FOR CONSTRUCTION

MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW A

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PROJECT TEAM DATA

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PROJECT NO:	223-0166

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SHEET 51 of 110

103RD STREET S.

GREY CLOUD TRAIL S.

BURLINGTON NORTHERN SANTA FE RAILROAD

DND

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

BLOCK 1

BLOCK 2

BLOCK 3

ROAD B

ROAD C

ROCK CONSTRUCTION ENTRANCE

TEMPORARY DEWATERING CHANNEL (BLANKET AND ROCK CHECKS)

INLET PROTECTION (TYP)

TEMPORARY SEDIMENT BASIN. OUTLET W/FAIRCLOTH SKIMMER

POND 6
NWL:711.00
HWL:715.14

ULTIMATE DISCHARGE POINT (NWO) DRAINS TO GREY CLOUD CHANNEL

DOUBLE ROW OF SILT FENCE SURROUNDING WETLANDS

WB-01A
HWL:709.62

WB-01B
HWL:709.62

WB-01C
HWL:711.23

CATEGORY 3 EROSION CONTROL BLANKET (TYP)

DOUBLE ROW OF SILT FENCE SURROUNDING WETLAND

POND 7
NWL:718.00
HWL:718.52

POND 8
NWL:724.80

N

0 25 50 100
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW B

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW C

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DATE	ISSUE
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PROJECT NO: 223-0166

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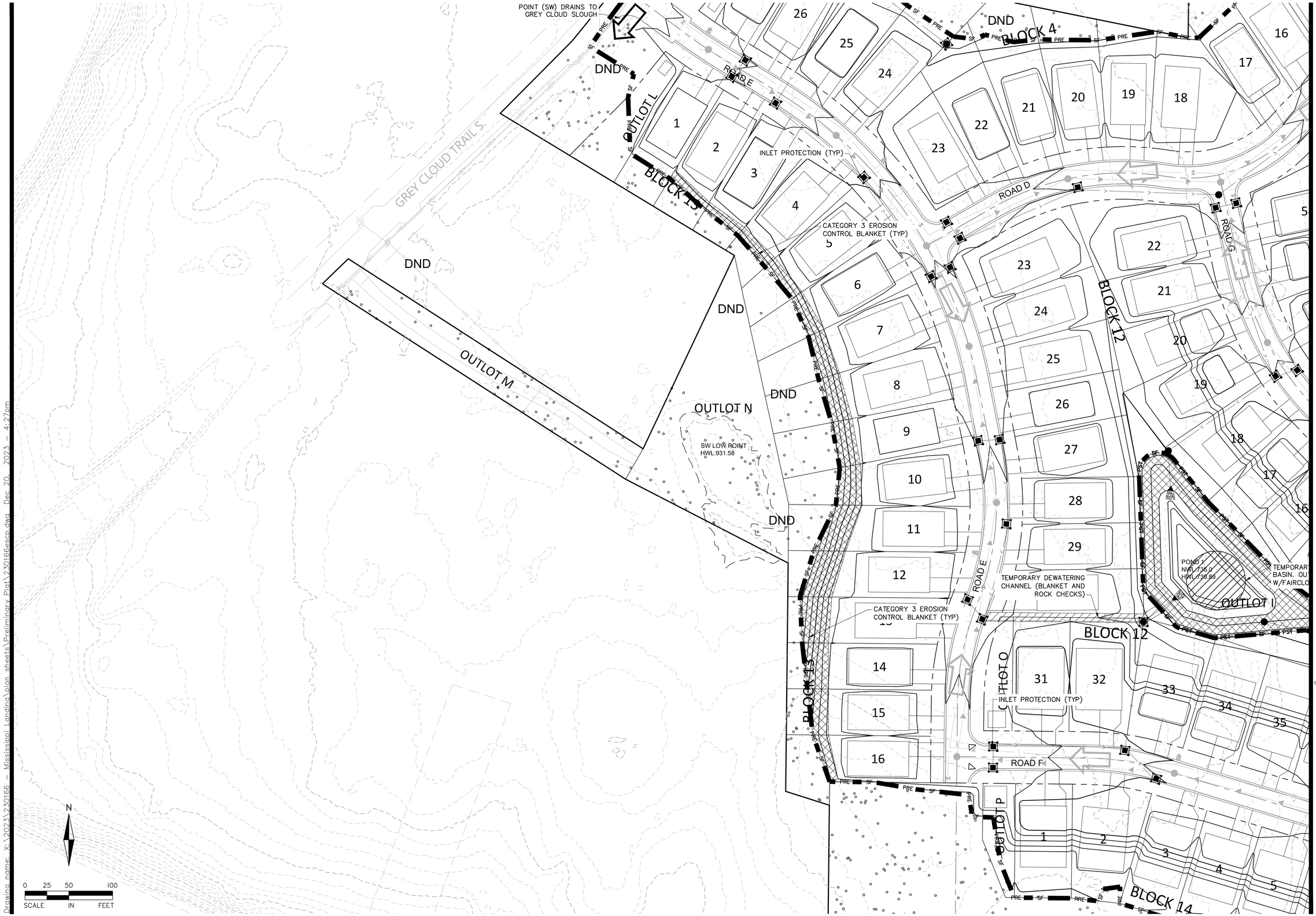

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW D

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW E

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OUTLOT H

POND 3
NWL:718.0
HWL:722.22

TEMPORARY DEWATERING CHANNEL (BLANKET AND ROCK CHECKS)

TEMPORARY SEDIMENT BASIN. OUTLET W/FAIRCLOTH SKIMMER

BLOCK 6

BLOCK 9

OUTLOT G

DND

CATEGORY 3 EROSION CONTROL BLANKET (TYP)

POND 4
NWL:717.9
HWL:721.87

TEMPORARY SEDIMENT BASIN. OUTLET W/FAIRCLOTH SKIMMER

BLOCK 8

ROAD G

TRAIL I

INLET PROTECTION (TYP)

ROAD I

BLOCK 10

PLUG INFILTRATION BASIN INLETS DURING CONSTRUCTION AND FIRST GROWING SEASON

SANTA FE RAILROAD

BURLINGTON NORTH

OUTLOT I

POND 2
NWL:727.0
HWL:732.14

TEMPORARY SEDIMENT BASIN. OUTLET W/FAIRCLOTH SKIMMER

ROAD H

ROAD J

END DOUBLE ROW OF SILT FENCE

PROTECT INFILTRATION AREA DURING MASS GRADING. BASIN ELEVATIONS SHOULD BE LEFT 1' HIGH AFTER INITIAL GRADING TO PREVENT CLOGGING OF NATIVE SOILS VIA SEDIMENTATION OR FINAL GRADED IF SUFFICIENT STABILIZATION UPSTREAM AND BMPS CAN BE INSTALLED UPSTREAM TO PREVENT SEDIMENTATION. FINISHED GRADING OF BASIN TO PLAN ELEVATION CAN BE COMPLETED ONCE IMMEDIATE UP-GRADIENT AREAS ARE STABILIZED

CONTRACTOR SHALL NOT USE HEAVY WHEELED EQUIPMENT IN PROPOSED INFILTRATION BASIN AREA. LOW IMPACT EARTH MOVING EQUIPMENT SHALL BE USED FOR CONSTRUCTION AND SEEDING OF BASIN.

BLOCK 11

BLOCK 15

INFILTRATION 3
BOTTOM:730.5
HWL:731.16

TEMPORARY DEWATERING CHANNEL (BLANKET AND ROCK CHECKS)

PROTECT INFILTRATION AREA DURING MASS GRADING. BASIN ELEVATIONS SHOULD BE LEFT 1' HIGH AFTER INITIAL GRADING TO PREVENT CLOGGING OF NATIVE SOILS VIA SEDIMENTATION OR FINAL GRADED IF SUFFICIENT STABILIZATION UPSTREAM AND BMPS CAN BE INSTALLED UPSTREAM TO PREVENT SEDIMENTATION. FINISHED GRADING OF BASIN TO PLAN ELEVATION CAN BE COMPLETED ONCE IMMEDIATE UP-GRADIENT AREAS ARE STABILIZED

INFILTRATION 1
BOTTOM:716.0
HWL:721.57

PLUG INFILTRATION BASIN INLETS DURING CONSTRUCTION AND FIRST GROWING SEASON

CONTRACTOR SHALL NOT USE HEAVY WHEELED EQUIPMENT IN PROPOSED INFILTRATION BASIN AREA. LOW IMPACT EARTH MOVING EQUIPMENT SHALL BE USED FOR CONSTRUCTION AND SEEDING OF BASIN.

TRAIL E

OUTLOT I

OUTLOT J

OUTLOT G

N

0 25 50 100
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW F

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ROAD F
BLOCK 14
BLOCK 16
TRAIL A
TRAIL B
OUTLOT P
OUTLOT Q
OUTLOT R
"PARK"
INLET PROTECTION (TYP)
DND
CITY PARK PRESERVE
PLASTIC PIPE IN WATER

GREY CLOUD SLOUGH
19-5 P

N

0 25 50 100
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW G

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PROTECT INFILTRATION AREA DURING MASS GRADING. BASIN ELEVATIONS SHOULD BE LEFT 1' HIGH AFTER INITIAL GRADING TO PREVENT CLOGGING OF NATIVE SOILS VIA SEDIMENTATION OR FINAL GRADED IF SUFFICIENT STABILIZATION UPSTREAM AND BMPS CAN BE INSTALLED UPSTREAM TO PREVENT SEDIMENTATION. FINISHED GRADING OF BASIN TO PLAN ELEVATION CAN BE COMPLETED ONCE IMMEDIATE UP-GRADIENT AREAS ARE STABILIZED

CONTRACTOR SHALL NOT USE HEAVY WHEELED EQUIPMENT IN PROPOSED INFILTRATION BASIN AREA. LOW IMPACT EARTH MOVING EQUIPMENT SHALL BE USED FOR CONSTRUCTION AND SEEDING OF BASIN.

INFILTRATION 3
BOTTOM:730.5
HWL:731.16

TEMPORARY DEWATERING CHANNEL (BLANKET AND ROCK CHECKS)

CATEGORY 3 EROSION CONTROL BLANKET (TYP)

INLET PROTECTION (TYP)

PROTECT INFILTRATION AREA DURING MASS GRADING. BASIN ELEVATIONS SHOULD BE LEFT 1' HIGH AFTER INITIAL GRADING TO PREVENT CLOGGING OF NATIVE SOILS VIA SEDIMENTATION OR FINAL GRADED IF SUFFICIENT STABILIZATION UPSTREAM AND BMPS CAN BE INSTALLED UPSTREAM TO PREVENT SEDIMENTATION. FINISHED GRADING OF BASIN TO PLAN ELEVATION CAN BE COMPLETED ONCE IMMEDIATE UP-GRADIENT AREAS ARE STABILIZED

INFILTRATION 1
BOTTOM:716.0
HWL:721.57

PLUG INFILTRATION BASIN INLETS DURING CONSTRUCTION AND FIRST GROWING SEASON

CONTRACTOR SHALL NOT US... WHEELED EQUIPMENT IN PRO... INFILTRATION BASIN AREA. L... IMPACT EARTH MOVING EQUI... SHALL BE USED FOR CONST... AND SEEDING OF BASIN.

INFILTRATION 4
BOTTOM:726.0
HWL:726.66

MN DNR IDENTIFIED RARE PLANT SPECIES. DO NOT DISTURB. PROVIDED BY KES. SHAPE FILE.

CITY PARK PRESERVE

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MISSISSIPPI LANDING

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PRELIMINARY PLAT AND PUD PLAN

EROSION AND SEDIMENT CONTROL PLAN VIEW H

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EROSION CONTROL GENERAL NOTES:

1. NO LAND DISTURBING ACTIVITY SHALL OCCUR UNTIL A GRADING PERMIT HAS BEEN ISSUED FROM THE CITY OF COTTAGE GROVE AND THE WATERSHED DISTRICT. UNLESS EXPRESSLY EXTENDED BY A PERMIT, THE HOURS OF OPERATION SHALL BE LIMITED TO 7:00 AM TO 6:00 PM, MONDAY THROUGH SATURDAY.

2. BEST MANAGEMENT PRACTICES (BMP'S) REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.

3. ALL BMP'S SELECTED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.

4. ALL WORK AND MATERIALS SHALL BE CONSTRUCTED ACCORDING TO THE APPROVED PLANS. ANY DEVIATION FROM THE APPROVED PLANS SHALL REQUIRE WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

5. A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

6. THE BOUNDARIES OF THE LAND DISTURBANCE LIMITS SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. NO DISTURBANCE BEYOND THE DISTURBED LIMITS.

7. WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.

8. ESTABLISH A PERMANENT VEGETATIVE COVER ON ALL EXPOSED SOILS WHERE LAND IS COMING OUT OF AGRICULTURAL PRODUCTION. PLANT AS SOON AS POSSIBLE TO ESTABLISH DENSE GRASS FILTER PRIOR TO CONSTRUCTION AND TO MINIMIZE WEED GROWTH.

9. ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIPLINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.

10. ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES AND THEY SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.

11. SILT FENCE IS REQUIRED AT DOWN GRADIENT PERIMETER OF DISTURBED AREAS AND STOCKPILES. PROTECT WETLANDS, WATERCOURSES AND ADJACENT PROPERTIES FROM SEDIMENTATION AND STORMWATER RUNOFF.

12. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE/CONTRACTOR SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS, AS MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.

13. THE BMP'S SHALL BE INSPECTED DAILY BY THE PERMITTEE/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. SILT FENCES CLEANED OR REPLACED AT SEDIMENT BUILDUP OF 1/3 OF THE FENCE HEIGHT.

14. LAND DISTURBING ACTIVITIES SHALL OCCUR IN INCREMENTS OF WORKABLE SIZE SUCH THAT ADEQUATE BMP CONTROL CAN BE PROVIDED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE SMALLEST PRACTICAL AREA SHALL BE EXPOSED OR OTHERWISE DISTURBED AT ANY ONE TIME.

15. OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK-BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.

16. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED FROM EROSION WITHIN 7 DAYS OF SUBSTANTIAL COMPLETION OF GRADING IN THAT AREA. TEMPORARY SEED AND MULCH SHALL COVER ALL EXPOSED SOILS IF GRADING COMPLETION IS DELAYED LONGER THAN 7 DAYS. PERMANENT SEED AND MULCH OR SOD IS REQUIRED WITHIN 3 DAYS OF COMPLETION OF FINAL GRADING.

17. GENERAL TEMPORARY SEED SHALL BE MNDOT MIX 190 @ 100 LBS. PER ACRE OR APPROVED EQUAL. PERMANENT SEED SHALL BE MNDOT MIX 270 @ 120 LBS. PER ACRE OR APPROVED EQUAL. (PLANTING DATES PER SPEC 2575) MULCH SHALL BE MNDOT TYPE 1 (CLEAN OAT STRAW) @ 2 TONS PER ACRE AND DISK ANCHORED IN PLACE OR APPROVED EQUAL. FERTILIZER SHALL BE 80-80-80 NPK PER ACRE (UNLESS P RESTRICTIONS APPLY) AND INCORPORATED INTO THE SEED BED.

18. POND, BASIN AND WETLAND AREAS SHALL BE SEEDED IN ACCORDANCE WITH LANDSCAPE PLAN.

19. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

20. AN ALTERNATE EROSION & SEDIMENT CONTROL PLAN SHALL BE REQUIRED FOR LAND DISTURBANCES ON EACH LOT AS PART OF ANY FUTURE BUILDING PERMIT FOR THE CONSTRUCTION OF STRUCTURES AND DRIVEWAYS.

21. ALL EROSION AND SEDIMENT CONTROL ITEMS MUST BE IN COMPLIANCE WITH MPCA CSW PERMIT (MN R100001)

EROSION AND SEDIMENT CONTROL MAINTENANCE PROGRAM:

1. INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING SILT FENCE.

2. REPLACEMENT – FABRIC SHALL BE REPLACED PROMPTLY WHEN IT DECOMPOSES OR BECOMES INEFFECTIVE BEFORE THE BARRIER IS NO LONGER NECESSARY.

3. SEDIMENT REMOVAL – SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER. ANY SEDIMENT REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER FABRIC IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX, OR SODDED AS DIRECTED BY THE ENGINEER.

4. REMOVAL OF SILT FENCE – SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPWARD SLOPING AREA HAS BEEN PERMANENTLY STABILIZED. IF THE UPWARD SLOPING AREA IS TO BE EXPOSED LONGER THAN SIX (6) MONTHS, THAT AREA SHALL BE COVERED WITH TEMPORARY VEGETATION WHEN FIRST EXPOSED.

5. THE CONTRACTOR MUST ROUTINELY INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

6. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

A. DATE AND TIME OF INSPECTIONS;
B. NAME OF PERSON(S) CONDUCTING INSPECTIONS;
C. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
D. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVIES.)
E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN ½ INCH (0.5 INCHES) IN 24 HOURS:
F. DOCUMENTS OF CHANGES MADE TO THE SWPPP AS REQUIRED IN PART III.A.4.

7. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

CONSTRUCTION SEQUENCING:

MASS GRADING PHASE:
1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
2. PREPARE TEMPORARY PARKING AND STORAGE AREA.
3. INSTALL THE PRE-GRADING SILT FENCES AND INLET PROTECTION BMPs ON THE SITE.
4. CONSTRUCT ALL PRE-GRADING EROSION AND SEDIMENTATION CONTROL BMPs.
5. COMPLETE MASS GRADING AND INSTALL TEMPORARY AND PERMANENT SEEDING AND PLANTING.
6. CONSTRUCT POST-GRADING SILT FENCE ON THE SITE.

NOTE: INFILTRATION BASINS TO BE CONSTRUCTED IN AN ORDER WHERE THEY ARE TO BE PROTECTED FROM SILTATION AND HEAVY EQUIPMENT.

STREET & UTILITY PHASE:
1. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
2. INSTALL RIP RAP AROUND OUTLET STRUCTURES.
3. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
4. PREPARE SITE FOR PAVING.
5. PAVE SITE.
6. INSTALL INLET PROTECTION DEVICES.
7. INSTALL POST STREET AND UTILITY SILT FENCE.
8. INSTALL PRIVATE UTILITIES
9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED), IF REQUIRED BY THE CONTRACT.

EROSION CONTROL SCHEDULE:

1. PRIOR TO ANY CONSTRUCTION OR DEMOLITION, SILT FENCE AND FILTERS SHALL BE INSTALLED AS SHOWN TO INTERCEPT RUNOFF.

2. ALL EROSION CONTROL INSTALLATIONS SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR UNTIL THE SITE HAS BEEN RE-VEGETATED. CONTRACTOR MAY REMOVE NECESSARY SILT FENCING/FILTERS TO CONSTRUCT ROADWAYS, WHILE MAINTAINING ADEQUATE EROSION CONTROL IN ADJACENT AREA.

3. SUFFICIENT TOPSOIL SHALL BE STOCKPILED AND PRESERVED TO ALLOW FOR THE REPLACEMENT OF 6" OF TOPSOIL FOR DISTURBED AREAS TO BE RE-VEGETATED. COMPACTION MUST BE MINIMIZED DURING CONSTRUCTION ACTIVITY.

4. THE CONTRACTOR SHALL SCHEDULE SITE GRADING, UTILITY INSTALLATION AND PAVEMENT CONSTRUCTION SO THAT THE GENERAL SITE CAN BE MULCHED AND RE-SEEDED SOON AFTER DISTURBANCE. AREAS THAT WILL NOT BE SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED (MnDOT MIX 190 @ 100#/AC AND MULCHED OR SODDED WITHIN SEVEN (7) DAYS OF BEING DISTURBED.

5. CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES AS INDICATED ON THIS EROSION CONTROL PLAN AND ANY ADDITIONAL REQUIRED BASED ON MEANS, METHODS AND SEQUENCES OF CONSTRUCTION.

SEDIMENT CONTROL PRACTICES:

1. SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS.

2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERMITERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

3. THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

4. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.

5. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCES OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES.

6. SITE CONSTRUCTION ENTRANCES WILL BE AS SHOWN ON THE PLAN. ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT EACH ENTRANCE.

7. STREET SWEEPING SHALL BE USED IN ADDITION TO ROCK CONSTRUCTION ENTRANCES IF ROCK CONSTRUCTION ENTRANCE ALONE IS NOT ADEQUATE TO PREVENT SEDIMENT TRACKING ONTO THE STREET.

EROSION AND SEDIMENT CONTROL AMENDMENT:

1. SWPPP AMENDMENTS SHALL BE MADE ACCORDING TO THE CONSTRUCTION STORMWATER PERMIT.

2. PERMITTEES MUST AMEND THE SWPPP WITHIN 7 DAYS TO INCLUDE ADDITIONAL OR MODIFIED BMPS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCITON, OPERATION, MAINTENANCE, WEATHER, OR SEASONAL CONDITION HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.

3. PERMITTEES MUST AMEND THE SWPPP WITHIN 7 DAYS TO INCLUDE ADDITIONAL OR MODIFIED BMPS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICALTY MIMIZING THE DISCHARGE OF POLLUTATNTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES AR CAUSING WATER QUALITY STANDARD EXCEEDANCES OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF USEPA APPROVED TMDL.

FINAL STABILIZATION:

THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE. THE CONTRACTOR MUST SUBMIT A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER/OPERATOR (PERMITTEE) HAS ASSUMED CONTROL OF ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION. FINAL STABILIZATION CAN BE ACHIEVED IN THE FOLLOWING WAY:

ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS MUST BE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENTMEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS AND;

A. ALL DRAINAGE DITCHES, CONSTRUCTED TO DRAIN WATER FROM THE SITE AFTER CONSTRUCTION IS COMPLETE, MUST
   BE STABILIZED TO PRECLUDE EROSION;
B. ALL TEMPORARY SYNTHETIC, AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SILT
   FENCE) MUST BE REMOVED AS PART OF THE SITE FINALSTABILIZATION; AND
C. THE CONTRACTORS MUST CLEAN OUT ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENTATION
   BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. SEDIMENT MUST BE STABILIZED
   TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN, CONVEYANCES OR DRAINAGE WAYS DISCHARGING OFF-SITE OR TO SURFACE WATERS. THE CLEAN OUT OF PERMANENTBASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.

POLLUTION PREVENTION MANAGEMENT MEASURES:

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

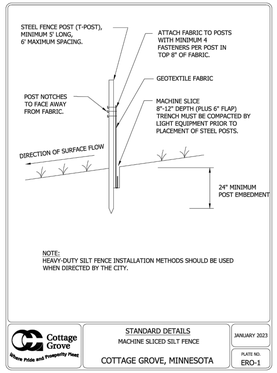
1. SOLID WASTE: COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTES MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

2. HAZARDOUS MATERIAL: OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

3. CONCRETE WASHOUT IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF.

4. NO ENGINE DEGREASING IS ALLOWED ON SITE.

5. STREET SWEEPING IS REQUIRED A MINIMUM OF 1 x PER WEEK OR AS DIRECTED BY CITY ENGINEER.



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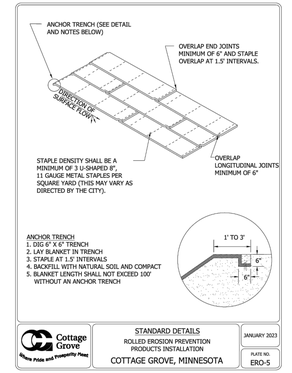

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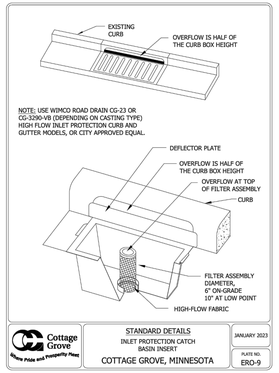

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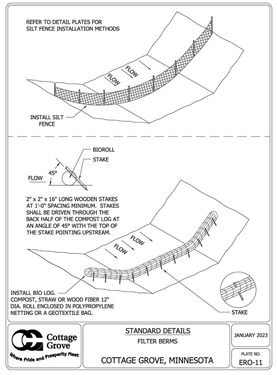

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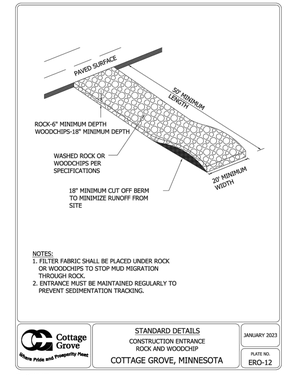

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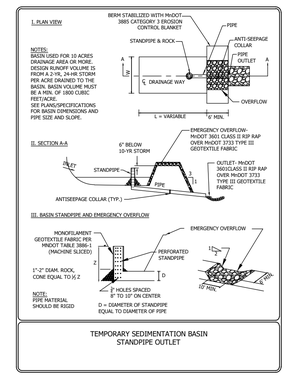

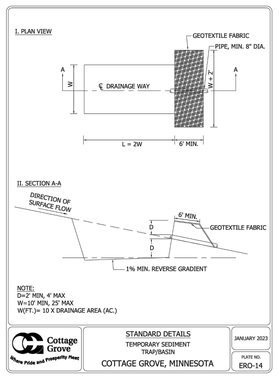

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ACTIVE SWPPP LEGEND

CONSTRUCTION SEQUENCE	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
MULCH BERM													
FIBER ROLLS / MULCH SOCKS													
SILT FENCE													
TEMPORARY MULCH COVER													
TEMPORARY HYDROMULCH													
EROSION CONTROL BLANKET													
ROCK DRIVEWAY / ROCK PADS													
INLET PROTECTION DEVICES													
PAVEMENT (DRIVEWAY/ROADS)													
SOD													
STOCKPILES													

NOTE: CONTRACTOR, GENERAL CONTRACTOR OR SWPPP INSPECTOR TO COMPLETE TABLE AS GRADING PROGRESSES

SEDIMENT BARRIERS
1. SILT FENCE (MnDOT 3886)
2. CURB LOG
3. ROCK WEEPER

INLET PROTECTION DEVICES
1. WIMCO (MnDOT TYPE A & C)
2. INFRASAFE STORM DRAIN/CULVERT
3. SILT SACK (MnDOT TYPE A)
4. DANDY BAG (MnDOT TYPE B)

ANTI-TRACKING CONTROL
1. 2" CRUSHED CLEAR ROCK (LAND DEVELOPMENT)

TEMPORARY SEED MIX
1. MnDOT-100 (OATS 20-120 DAY STABILIZATION)
2. MnDOT-150 (1-2 YEAR STABILIZATION)

PERMANENT SEED MIX/STABILIZATION
1. MnDOT 270 (RESIDENTIAL TURF)
2. SOD

STABILIZATION BMP'S
1. STRAW/HAY MnDOT TYPE 1 MULCH
2. EROSION CONTROL BLANKET MnDOT CAT. 3
3. HYDROMULCH MnDOT TYPE 5
4. TURF REINFORCEMENT MAT SC250 NORTH AMERICAN GREEN OR EQUAL-MNDOT CAT 6

GRADING ACTIVITY
1. CONCRETE WASHOUT IS DONE TRUCK BY TRUCK WITH A MOBILE WASHOUT SYSTEM PROVIDED AND COMPLETED BY THE CONCRETE CONTRACTOR.

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MISSISSIPPI LANDING
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PRELIMINARY PLAT AND PUD PLAN
EROSION CONTROL NOTES AND DETAILS

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PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

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SHEET 59 of 110

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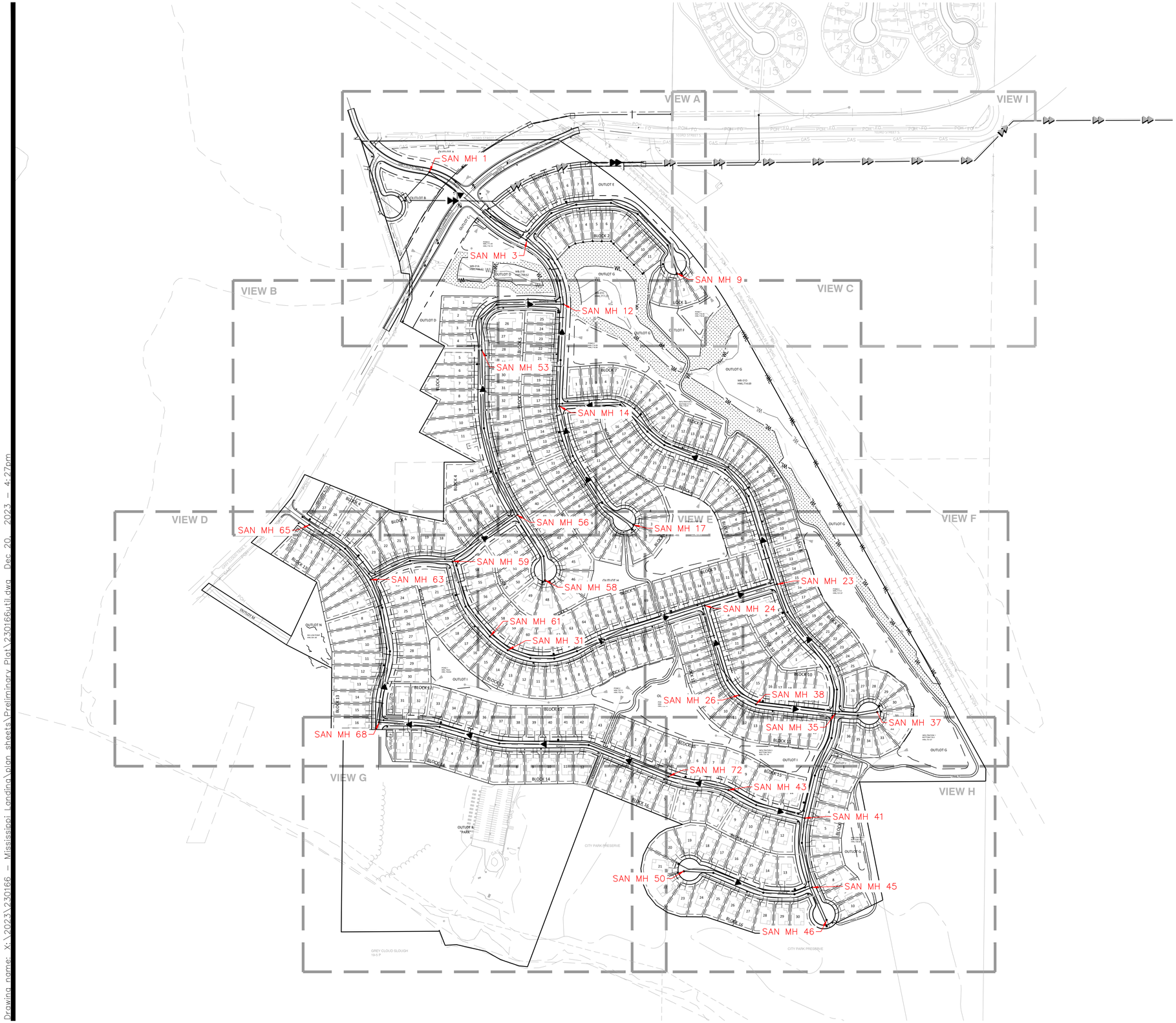

UTILITY NOTES:

1. EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
2. MAINTAIN A MIN 24" VERTICAL SEPARATION AT ALL PIPE CROSSINGS. WATER AND SANITARY SEWER TRUNK MAINS TO MAINTAIN 10' HORIZONTAL SEPARATION. LOWER WATERMAIN AS NECESSARY.
3. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
4. PROVIDE A MINIMUM OF 4" STYROFOAM BOARD INSULATION FOR ALL STORM SEWER AND WATERMAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 36".
5. ALL UTILITY WORK WITHIN THE R.O.W. SHALL COMPLY WITH THE CITY OF COTTAGE GROVE ENGINEERING GUIDELINES.
6. NOTIFY GOPHER STATE ONE CALL 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
7. PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS–FIELD MANUAL" LATEST REVISION, FOR ANY CONSTRUCTION WITHIN PUBLIC R.O.W.
8. ALL SANITARY MANHOLES TO BE 48" DIAMETER CONCRETE W/NEENAH R–1642 CASTING, UNLESS NOTED OTHERWISE.
9. WATERMAIN, SERVICES, AND VALVES SHALL BE INSTALLED WITH MINIMUM 7.5' OF COVER.
10. WATER SERVICES SHALL BE 1" DIA. TYPE K COPPER W/ 1" CORP. STOP AND 1" CURB BOX.
11. SEWER SERVICES SHALL BE 4" PVC SCH 40 MINIMUM 2% SLOPE UNLESS OTHERWISE NOTED ON THE PLANS.
12. EXTEND CURB STOP 1' BEYOND ROW WHEN SIDEWALK IS PRESENT.
13. WATER SERVICES MAY BE PLACED IN SAME TRENCH AS SEWER SERVICES PROVIDED THAT A 24" VERTICAL & A 36" HORIZONTAL SEPARATION ARE MAINTANED AND PIPE MATERIALS MEET THE CITY AND BUILDING CODES.
14. ALL CURB BOXES SHALL BE ADJUSTED TO AN ELEVATION OF 1" BELOW FINSHED GRADE.
15. ALL 8" WATERMAIN SHALL 8" CL–52 DIP.
16. SEE DESIGN SCHEDULES FOR SANITARY SEWER ON SHEET 69.

LEGEND:

- PROPOSED STORM SEWER
- PROPOSED DRAIN TILE
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY FORCEMAIN
- PROPOSED WATERMAIN
- PROPOSED CATCH BASIN
- PROPOSED SANITARY MANHOLE
- PROPOSED GATE VALVE
- PROPOSED HYDRANT
- EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING WATERMAIN
- EXISTING CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING STORM SEWER
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY SEWER

N

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PRELIMINARY PLAT AND PUD PLAN

SANITARY SEWER AND WATERMAIN PLAN OVERVIEW

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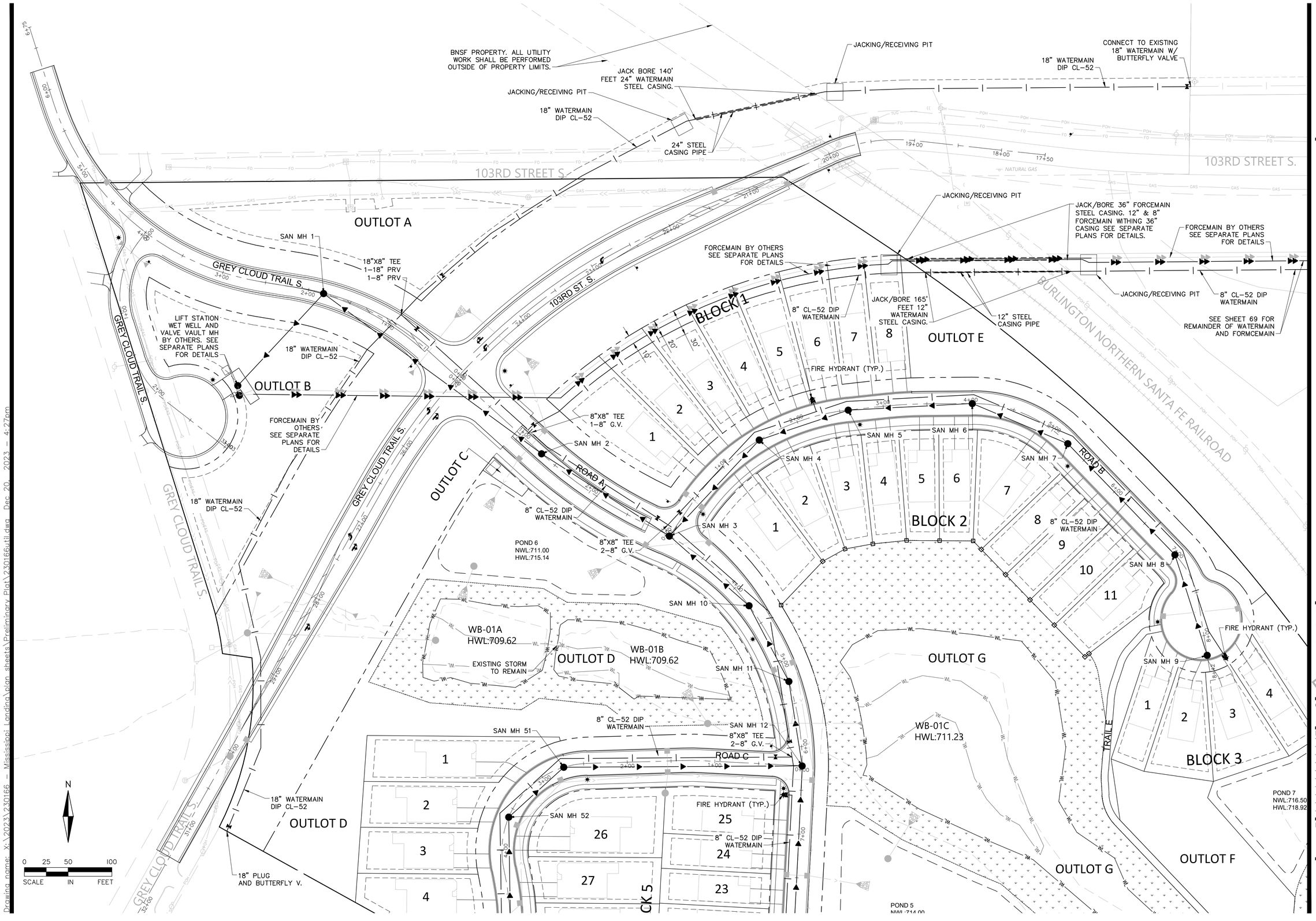

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SANITARY SEWER AND WATERMAIN PLAN VIEW A

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SANITARY SEWER AND WATERMAIN PLAN VIEW B

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SANITARY SEWER AND WATERMAIN PLAN VIEW C

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SHEET 63 of 110

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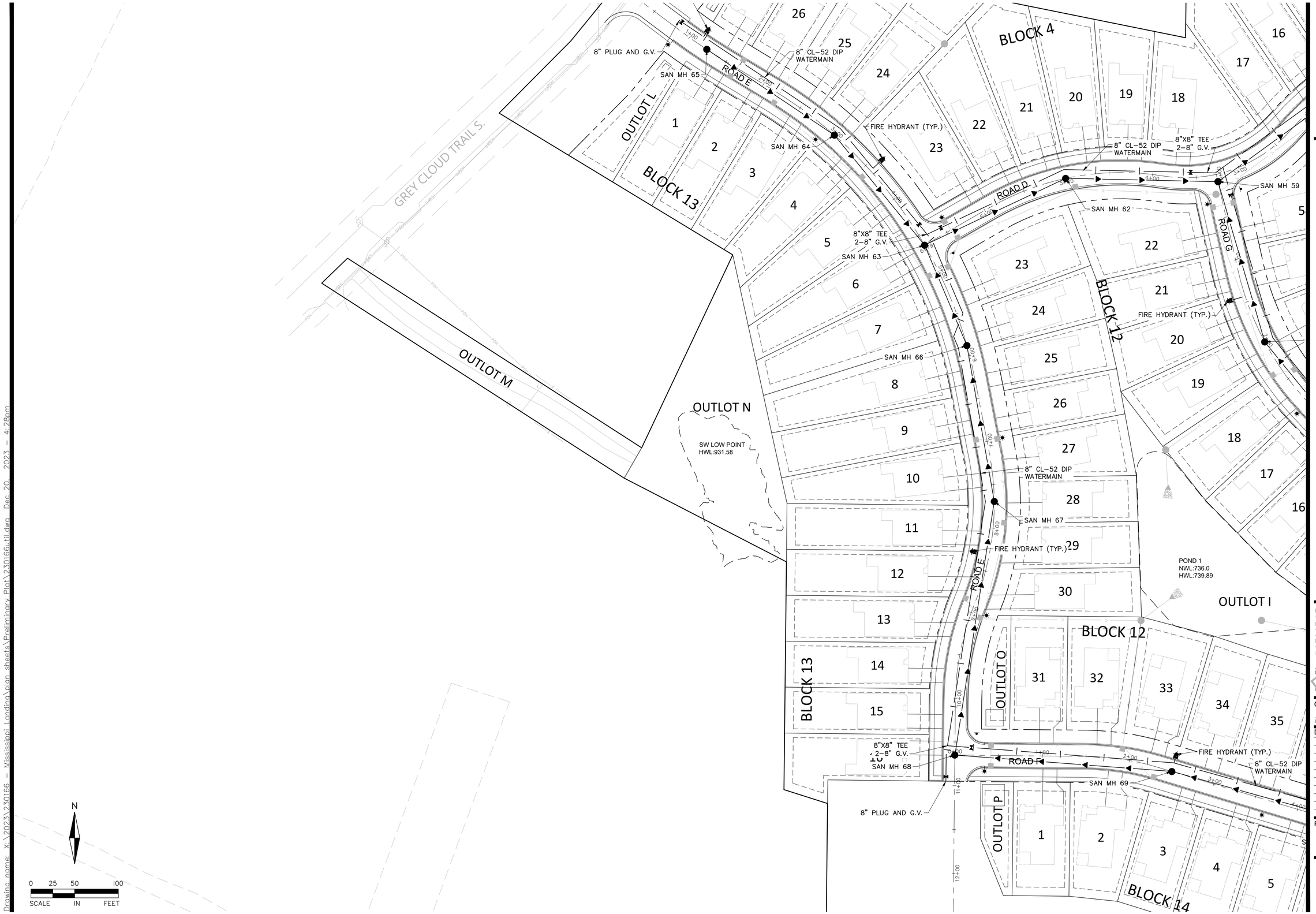

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8"X8" TEE
2-8" G.V.
SAN MH 68
8" PLUG AND G.V.
ROAD F
FIRE HYDRANT (TYP.)
8" CL-52 DIP WATERMAIN
SAN MH 69
SAN MH 70
SAN MH 71
SAN MH 72
OUTLOT P
BLOCK 14
BLOCK 16
TRAIL A
TRAIL B
OUTLOT Q
OUTLOT R
"PARK"
CITY PARK PRESERVE
GREY CLOUD SLOUGH
19-5 P

N

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SCALE IN FEET

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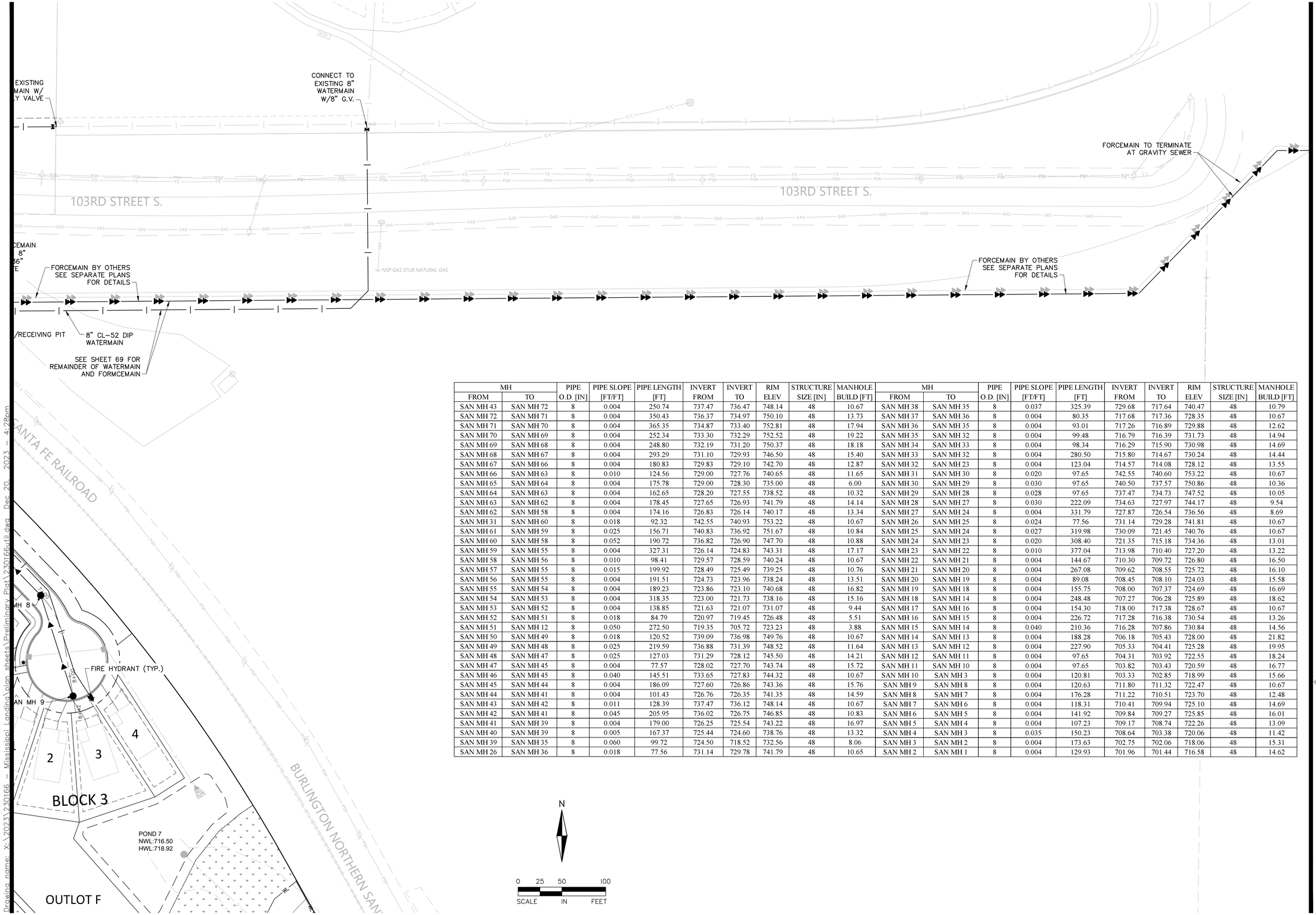

MH		PIPE	PIPE SLOPE	PIPE LENGTH	INVERT	INVERT	RIM	STRUCTURE	MANHOLE	MH		PIPE	PIPE SLOPE	PIPE LENGTH	INVERT	INVERT	RIM	STRUCTURE	MANHOLE
FROM	TO	O.D. [IN]	[FT/FT]	[FT]	FROM	TO	ELEV	SIZE [IN]	BUILD [FT]	FROM	TO	O.D. [IN]	[FT/FT]	[FT]	FROM	TO	ELEV	SIZE [IN]	BUILD [FT]
SAN MH 43	SAN MH 72	8	0.004	250.74	737.47	736.47	748.14	48	10.67	SAN MH 38	SAN MH 35	8	0.037	325.39	729.68	717.64	740.47	48	10.79
SAN MH 72	SAN MH 71	8	0.004	350.43	736.37	734.97	750.10	48	13.73	SAN MH 37	SAN MH 36	8	0.004	80.35	717.68	717.36	728.35	48	10.67
SAN MH 71	SAN MH 70	8	0.004	365.35	734.87	733.40	752.81	48	17.94	SAN MH 36	SAN MH 35	8	0.004	93.01	717.26	716.89	729.88	48	12.62
SAN MH 70	SAN MH 69	8	0.004	252.34	733.30	732.29	752.52	48	19.22	SAN MH 35	SAN MH 32	8	0.004	99.48	716.79	716.39	731.73	48	14.94
SAN MH 69	SAN MH 68	8	0.004	248.80	732.19	731.20	750.37	48	18.18	SAN MH 34	SAN MH 33	8	0.004	98.34	716.29	715.90	730.98	48	14.69
SAN MH 68	SAN MH 67	8	0.004	293.29	731.10	729.93	746.50	48	15.40	SAN MH 33	SAN MH 32	8	0.004	280.50	715.80	714.67	730.24	48	14.44
SAN MH 67	SAN MH 66	8	0.004	180.83	729.83	729.10	742.70	48	12.87	SAN MH 32	SAN MH 23	8	0.004	123.04	714.57	714.08	728.12	48	13.55
SAN MH 66	SAN MH 63	8	0.010	124.56	729.00	727.76	740.65	48	11.65	SAN MH 31	SAN MH 30	8	0.020	97.65	742.55	740.60	753.22	48	10.67
SAN MH 65	SAN MH 64	8	0.004	175.78	729.00	728.30	735.00	48	6.00	SAN MH 30	SAN MH 29	8	0.030	97.65	740.50	737.57	750.86	48	10.36
SAN MH 64	SAN MH 63	8	0.004	162.65	728.20	727.55	738.52	48	10.32	SAN MH 29	SAN MH 28	8	0.028	97.65	737.47	734.73	747.52	48	10.05
SAN MH 63	SAN MH 62	8	0.004	178.45	727.65	726.93	741.79	48	14.14	SAN MH 28	SAN MH 27	8	0.030	222.09	734.63	727.97	744.17	48	9.54
SAN MH 62	SAN MH 58	8	0.004	174.16	726.83	726.14	740.17	48	13.34	SAN MH 27	SAN MH 24	8	0.004	331.79	727.87	726.54	736.56	48	8.69
SAN MH 31	SAN MH 60	8	0.018	92.32	742.55	740.93	753.22	48	10.67	SAN MH 26	SAN MH 25	8	0.024	77.56	731.14	729.28	741.81	48	10.67
SAN MH 61	SAN MH 59	8	0.025	156.71	740.83	736.92	751.67	48	10.84	SAN MH 25	SAN MH 24	8	0.027	319.98	730.09	721.45	740.76	48	10.67
SAN MH 60	SAN MH 58	8	0.052	190.72	736.82	726.90	747.70	48	10.88	SAN MH 24	SAN MH 23	8	0.020	308.40	721.35	715.18	734.36	48	13.01
SAN MH 59	SAN MH 55	8	0.004	327.31	726.14	724.83	743.31	48	17.17	SAN MH 23	SAN MH 22	8	0.010	377.04	713.98	710.40	727.20	48	13.22
SAN MH 58	SAN MH 56	8	0.010	98.41	729.57	728.59	740.24	48	10.67	SAN MH 22	SAN MH 21	8	0.004	144.67	710.30	709.72	726.80	48	16.50
SAN MH 57	SAN MH 55	8	0.015	199.92	728.49	725.49	739.25	48	10.76	SAN MH 21	SAN MH 20	8	0.004	267.08	709.62	708.55	725.72	48	16.10
SAN MH 56	SAN MH 55	8	0.004	191.51	724.73	723.96	738.24	48	13.51	SAN MH 20	SAN MH 19	8	0.004	89.08	708.45	708.10	724.03	48	15.58
SAN MH 55	SAN MH 54	8	0.004	189.23	723.86	723.10	740.68	48	16.82	SAN MH 19	SAN MH 18	8	0.004	155.75	708.00	707.37	724.69	48	16.69
SAN MH 54	SAN MH 53	8	0.004	318.35	723.00	721.73	738.16	48	15.16	SAN MH 18	SAN MH 14	8	0.004	248.48	707.27	706.28	725.89	48	18.62
SAN MH 53	SAN MH 52	8	0.004	138.85	721.63	721.07	731.07	48	9.44	SAN MH 17	SAN MH 16	8	0.004	154.30	718.00	717.38	728.67	48	10.67
SAN MH 52	SAN MH 51	8	0.018	84.79	720.97	719.45	726.48	48	5.51	SAN MH 16	SAN MH 15	8	0.004	226.72	717.28	716.38	730.54	48	13.26
SAN MH 51	SAN MH 12	8	0.050	272.50	719.35	705.72	723.23	48	3.88	SAN MH 15	SAN MH 14	8	0.040	210.36	716.28	707.86	730.84	48	14.56
SAN MH 50	SAN MH 49	8	0.018	120.52	739.09	736.98	749.76	48	10.67	SAN MH 14	SAN MH 13	8	0.004	188.28	706.18	705.43	728.00	48	21.82
SAN MH 49	SAN MH 48	8	0.025	219.59	736.88	731.39	748.52	48	11.64	SAN MH 13	SAN MH 12	8	0.004	227.90	705.33	704.41	725.28	48	19.95
SAN MH 48	SAN MH 47	8	0.025	127.03	731.29	728.12	745.50	48	14.21	SAN MH 12	SAN MH 11	8	0.004	97.65	704.31	703.92	722.55	48	18.24
SAN MH 47	SAN MH 45	8	0.004	77.57	728.02	727.70	743.74	48	15.72	SAN MH 11	SAN MH 10	8	0.004	97.65	703.82	703.43	720.59	48	16.77
SAN MH 46	SAN MH 45	8	0.040	145.51	733.65	727.83	744.32	48	10.67	SAN MH 10	SAN MH 3	8	0.004	120.81	703.33	702.85	718.99	48	15.66
SAN MH 45	SAN MH 44	8	0.004	186.09	727.60	726.86	743.36	48	15.76	SAN MH 9	SAN MH 8	8	0.004	120.63	711.80	711.32	722.47	48	10.67
SAN MH 44	SAN MH 41	8	0.004	101.43	726.76	726.35	741.35	48	14.59	SAN MH 8	SAN MH 7	8	0.004	176.28	711.22	710.51	723.70	48	12.48
SAN MH 43	SAN MH 42	8	0.011	128.39	737.47	736.12	748.14	48	10.67	SAN MH 7	SAN MH 6	8	0.004	118.31	710.41	709.94	725.10	48	14.69
SAN MH 42	SAN MH 41	8	0.045	205.95	736.02	726.75	746.85	48	10.83	SAN MH 6	SAN MH 5	8	0.004	141.92	709.84	709.27	725.85	48	16.01
SAN MH 41	SAN MH 39	8	0.004	179.00	726.25	725.54	743.22	48	16.97	SAN MH 5	SAN MH 4	8	0.004	107.23	709.17	708.74	722.26	48	13.09
SAN MH 40	SAN MH 39	8	0.005	167.37	725.44	724.60	738.76	48	13.32	SAN MH 4	SAN MH 3	8	0.035	150.23	708.64	703.38	720.06	48	11.42
SAN MH 39	SAN MH 35	8	0.060	99.72	724.50	718.52	732.56	48	8.06	SAN MH 3	SAN MH 2	8	0.004	173.63	702.75	702.06	718.06	48	15.31
SAN MH 26	SAN MH 36	8	0.018	77.56	731.14	729.78	741.79	48	10.65	SAN MH 2	SAN MH 1	8	0.004	129.93	701.96	701.44	716.58	48	14.62

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PRELIMINARY PLAT AND PUD PLAN

SANITARY SEWER AND WATERMAIN PLAN -VIEW I

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MARK RAUSCH, PE

Date License No.

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QUALITY ASSURANCE/CONTROL

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DATE	ISSUE
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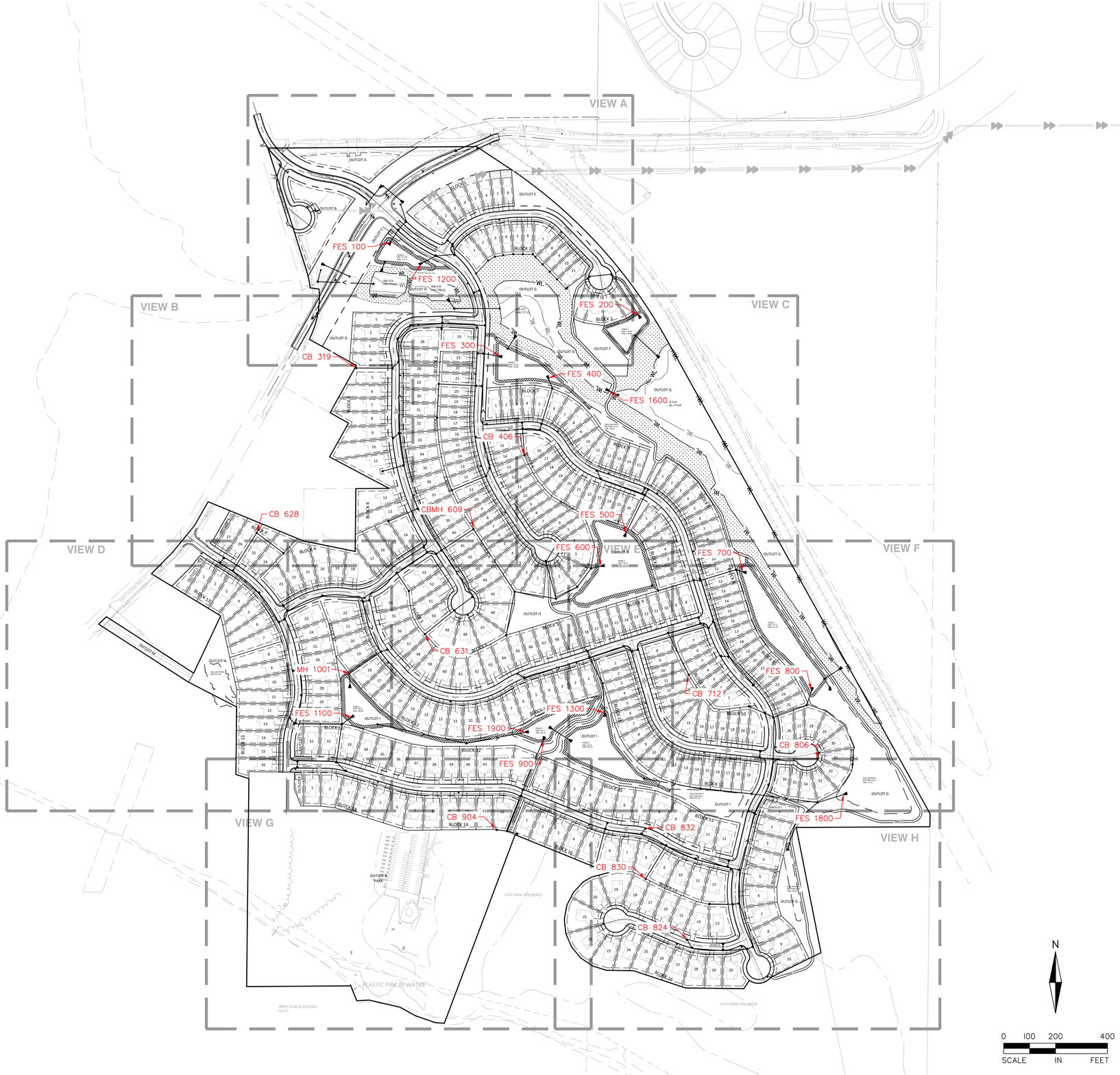
PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

69

SHEET 69 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166util.dwg Dec 20, 2023 - 4:28pm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VIEW C
VIEW D
VIEW E
VIEW F
VIEW G
VIEW H
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CB 406
CB 628
CBMH 609
FES 500
FES 600
FES 700
CB 631
CB 712
FES 800
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FES 1100
FES 1300
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STORM SEWER PLAN VIEW A

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PROJECT TEAM DATA

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PROJECT NO:	223-0166

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STORM SEWER PLAN VIEW B

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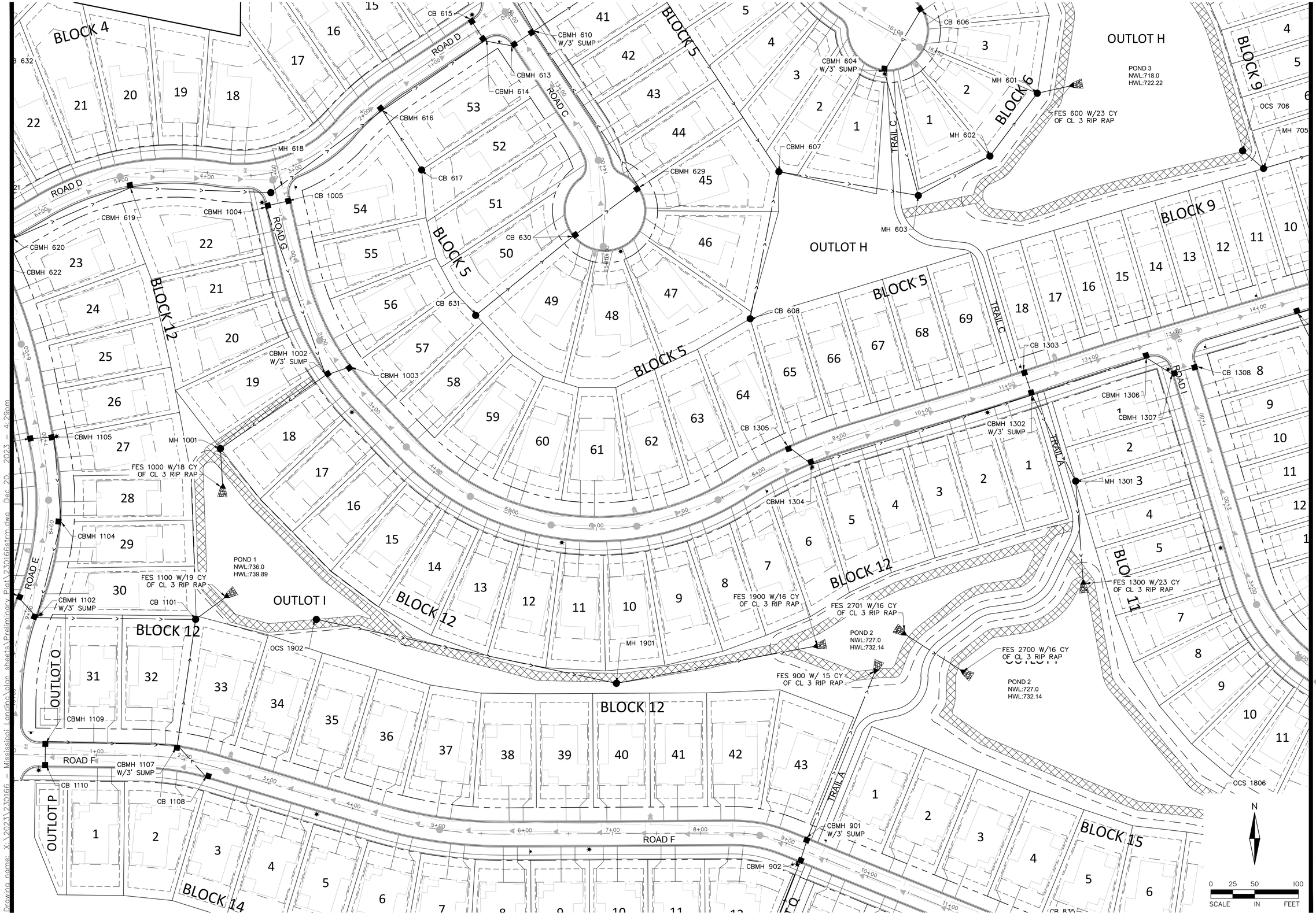

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75

SHEET 75 of 110

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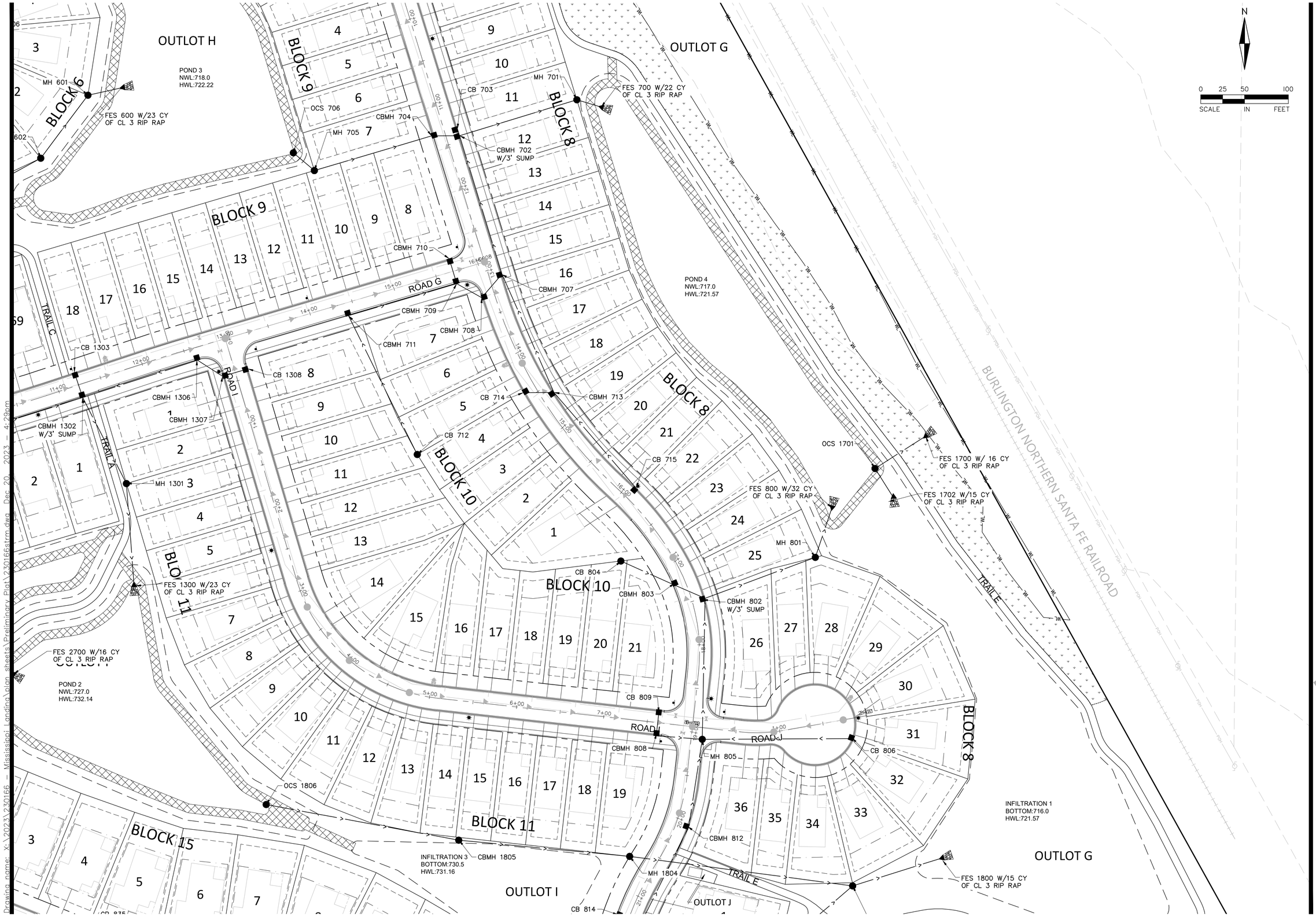

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PROJECT NO:	223-0166

76

SHEET 76 of 110

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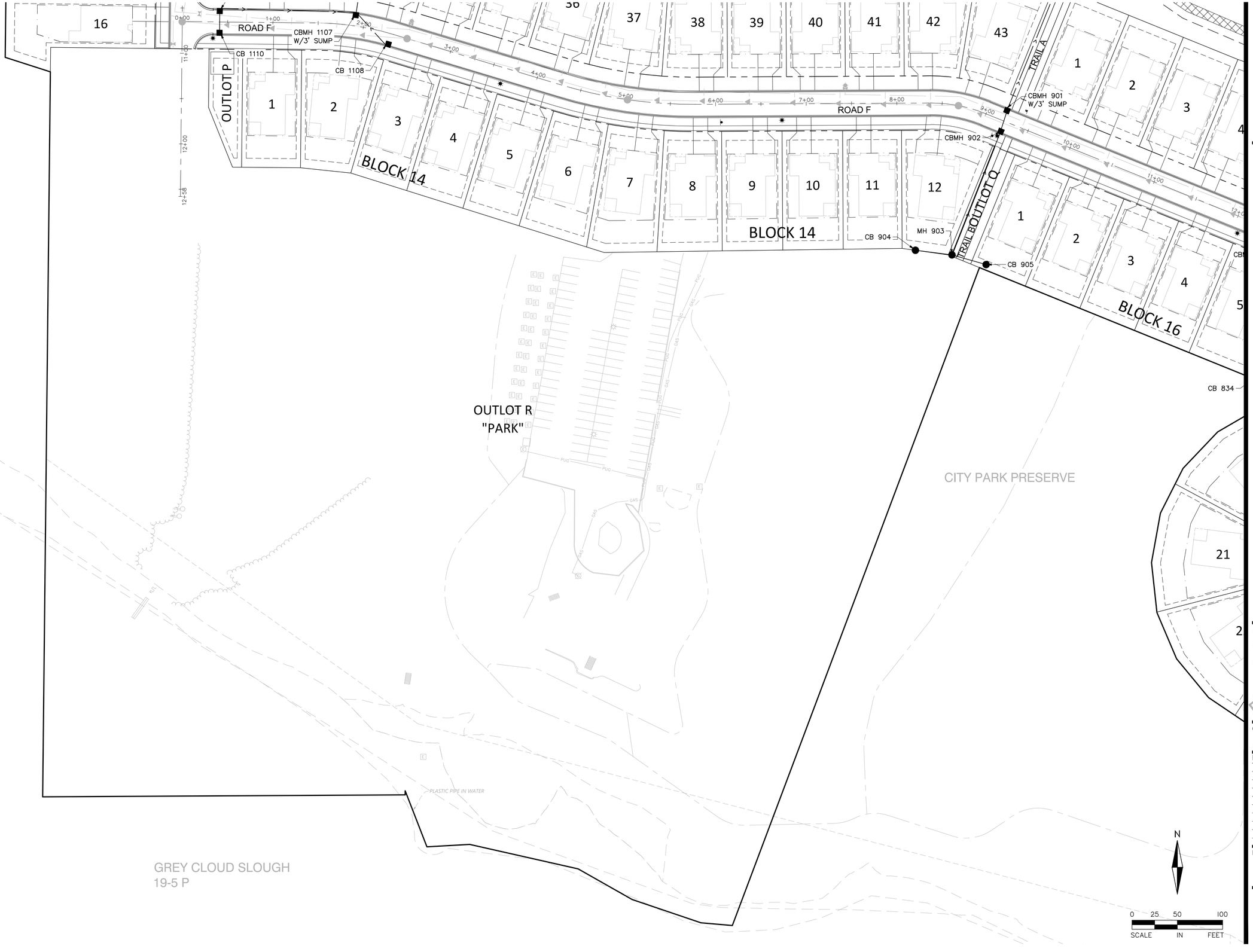

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PROJECT NO:	223-0166

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STORM SEWER SCHEDULE:

MH/CB FROM	TO	P. DIA. [IN]	P. SLOPE S [%]	P. TYPE	PIPE LENGTH [FT]	FROM INVERT	TO INVERT	RIM ELEV	STR. TYPE	CAST TYPE	BUILD (FT)	SPECIAL COMMENTS
FES 104	CBMH 103	15	0.50%	RCP	56.8	711.85	711.57	0.00	0	0	0.00	
CBMH 103	CBMH 102	15	0.76%	RCP	49.3	711.57	711.19	715.86	48"	R-3067-VB	4.29	
CBMH 102	FES 100	18	0.30%	RCP	53.9	711.16	711.00	715.86	48"	R-3067-VB	7.70	3' SUMP
CB 202	CBMH 201	15	0.44%	RCP	91.8	717.44	717.04	721.89	2x3	R-3067-VB	4.45	
CBMH 201	FES 200	18	0.28%	RCP	191.1	717.04	716.50	721.97	48"	R-3067-VB	7.93	3' SUMP
CB 326	CBMH 325	12	1.20%	RCP	86.9	734.77	733.73	737.97	27"	R-4342	3.20	Green Area
CBMH 325	CBMH 320	12	0.44%	RCP	124.4	733.63	733.08	738.10	48"	R-3067-V	4.47	
CB 324	CBMH 323	12	0.44%	RCP	29.3	715.62	715.49	719.82	2x3	R-3067-V	4.20	
CBMH 323	CBMH 311	15	0.33%	RCP	137.5	715.40	714.95	719.82	48"	R-3067-V	4.42	
CB 322	CBMH 305	12	0.44%	PP	130.3	721.79	721.22	725.29	27"	R-4342	3.50	Green Area
CB 321	CBMH 320	12	0.44%	RCP	34.2	733.01	732.86	737.21	2x3	R-3067-V	4.20	
CBMH 320	CBMH 317	12	2.70%	RCP	275.2	732.76	725.33	737.08	60"	R-3067-V	4.32	
CB 319	CBMH 318	15	0.33%	PP	137.0	722.36	721.91	725.86	27"	R-4342	3.50	TC Calculated by HydroCAD Green Area
CBMH 318	CBMH 317	15	1.00%	RCP	38.1	721.81	721.43	730.35	48"	R-3067-V	8.54	
CBMH 317	CBMH 316	18	0.74%	RCP	87.6	721.33	720.68	729.53	48"	R-3067-V	8.20	
CBMH 316	CBMH 315	18	3.40%	RCP	69.5	720.58	718.22	726.19	48"	R-3067-V	5.61	
CBMH 315	CBMH 312	18	1.40%	RCP	121.7	718.12	716.41	723.07	48"	R-3067-V	4.95	
CB 314	CBMH 312	12	1.00%	RCP	30.2	716.98	716.68	721.18	2x3	R-3067-VB	4.20	
CB 313	CBMH 312	12	5.00%	PP	21.3	717.93	716.87	721.43	27"	R-4342	3.50	Green Area
CBMH 312	CBMH 311	21	0.66%	RCP	167.8	716.16	715.05	721.20	60"	R-3067-VB	5.04	
CBMH 311	CBMH 301	27	0.18%	RCP	109.3	714.45	714.25	722.34	72"	R-3067-V	7.89	
CB 310	CBMH 309	12	0.44%	RCP	140.1	724.56	723.94	728.06	27"	R-4342	3.50	Green Area
CBMH 309	CBMH 308	12	0.44%	RCP	37.9	723.84	723.68	730.78	48"	R-3067-V	6.94	
CBMH 308	CBMH 306	12	0.90%	RCP	116.0	723.58	722.53	730.55	48"	R-3067-V	6.97	
CB 307	CBMH 306	12	0.44%	RCP	31.4	724.36	724.22	728.56	2x3	R-3067-V	4.20	
CBMH 306	CBMH 303	12	2.00%	RCP	202.0	722.43	718.39	728.74	48"	R-3067-V	6.31	
CBMH 305	CBMH 304	12	0.60%	PP	140.1	719.20	718.36	722.70	48"	R-4342	3.50	Green Area
CBMH 304	CBMH 303	12	1.20%	RCP	29.7	718.26	717.90	725.05	48"	R-3067-V	6.79	
CBMH 303	CBMH 301	15	2.50%	RCP	125.0	717.65	714.53	725.15	48"	R-3067-V	7.50	
CB 302	CBMH 301	12	0.44%	RCP	29.7	719.36	719.23	723.56	2x3	R-3067-V	4.20	
CBMH 301	FES 300	30	0.26%	RCP	58.7	714.15	714.00	724.15	72"	R-3067-V	13.00	3' Sump
CB 406	CBMH 404	15	0.33%	PP	99.2	721.23	720.90	724.73	27"	R-4342	3.50	Green Area
CB 405	CBMH 404	12	0.44%	RCP	29.7	722.25	722.12	726.45	2x3	R-3067-V	4.20	
CBMH 404	CBMH 403	15	0.33%	RCP	65.3	720.65	720.44	726.37	60"	R-3067-V	5.72	
CBMH 403	CBMH 402	15	0.33%	RCP	29.7	720.34	720.24	725.92	48"	R-3067-VB	5.58	
CBMH 402	MH 401	15	2.00%	PP	140.0	720.14	717.34	726.00	48"	R-3067-VB	8.86	3' Sump
MH 401	FES 400	15	1.10%	RCP	42.1	714.46	714.00	721.00	48"	R-1642	6.54	Green Area
CB 506	CBMH 505	12	0.50%	RCP	38.4	722.26	722.07	726.46	2x3	R-3067-V	4.20	
CBMH 505	CBMH 502	12	0.70%	RCP	175.2	721.97	720.74	726.27	48"	R-3067-V	4.30	
CB 504	CBMH 501	12	0.44%	RCP	30.0	720.89	720.76	725.09	2x3	R-3067-V	4.20	
CB 503	CBMH 502	12	0.44%	RCP	29.2	720.70	720.57	724.90	2x3	R-3067-V	4.20	
CBMH 502	CBMH 501	12	2.00%	RCP	11.5	720.47	720.24	725.08	48"	R-3067-V	4.61	
CBMH 501	FES 500	15	1.20%	RCP	165.7	719.99	718.00	725.09	48"	R-3067-V	8.10	3' Sump
CB 632	CBMH 628	12	0.55%	PP	129.5	733.11	732.40	736.31	27"	R-4342	3.20	
CB 631	CBMH 630	12	0.44%	PP	143.0	734.00	733.37	737.50	27"	R-4342	3.50	
CBMH 630	CBMH 629	12	0.44%	RCP	93.9	733.27	732.86	740.79	48"	R-3067-V	7.52	
CBMH 629	CBMH 610	12	1.00%	RCP	215.2	732.76	730.61	740.36	48"	R-3067-V	7.60	
CBMH 628	CBMH 625	15	0.44%	RCP	174.9	732.30	731.53	735.83	48"	R-4342	3.53	Green Area
CB 627	CBMH 626	12	2.00%	RCP	30.2	731.83	731.23	736.03	2x3	R-3067-V	4.20	
CBMH 626	CBMH 625	12	0.44%	RCP	58.4	731.13	730.87	735.47	48"	R-3067-V	4.34	
CBMH 625	CBMH 624	18	0.40%	RCP	130.8	730.62	730.10	736.60	48"	R-3067-V	5.98	
CBMH 624	CBMH 623	21	0.21%	RCP	135.8	729.85	729.56	739.23	48"	R-3067-V	9.38	
CBMH 623	CBMH 622	21	0.26%	RCP	30.0	729.46	729.38	741.67	60"	R-3067-V	12.21	
CBMH 622	CBMH 620	24	0.18%	RCP	30.8	729.13	729.08	741.68	48"	R-3067-V	12.55	
CB 621	CBMH 620	12	0.44%	RCP	30.0	737.25	737.12	741.45	2x3	R-3067-V	4.20	
CBMH 620	CBMH 619	24	0.28%	RCP	145.5	728.98	728.57	741.67	48"	R-3067-V	12.69	
CBMH 619	CBMH 618	24	0.28%	RCP	173.3	728.47	727.98	742.01	48"	R-3067-V	13.54	
MH 618	CBMH 616	24	0.26%	RCP	143.5	727.88	727.51	743.06	48"	R-1642	15.18	
CB 617	CBMH 616	12	0.44%	PP	81.4	735.40	735.04	738.90	27"	R-4342	3.50	Green Area
CBMH 616	CBMH 614	24	0.40%	RCP	141.1	727.26	726.70	741.15	48"	R-3067-V	13.89	
CB 615	CBMH 614	12	1.00%	RCP	29.7	734.59	734.29	738.79	2x3	R-3067-V	4.20	
CBMH 614	CBMH 613	24	0.60%	RCP	31.8	726.60	726.41	738.88	48"	R-3067-V	12.28	
CBMH 613	CBMH 610	24	0.70%	RCP	30.0	726.31	726.10	738.87	48"	R-3067-V	12.56	
CB 612	CBMH 611	12	0.44%	RCP	125.6	735.61	735.06	739.11	27"	R-4342	3.50	Green Area
CBMH 611	CBMH 610	12	0.44%	RCP	184.1	734.96	734.15	740.11	48"	R-3067-V	5.15	
CBMH 610	CBMH 609	27	0.60%	PP	144.9	726.10	725.23	738.87	48"	R-3067-VB	15.77	3' Sump
CBMH 609	CBMH 607	27	0.60%	PP	288.0	725.13	723.40	729.69	72"	R-4342	4.56	Green Area
CB 608	CBMH 607	12	2.00%	PP	171.0	728.06	724.64	731.56	27"	R-4342	3.50	Green Area
CBMH 607	MH 603	27	1.18%	PP	161.3	723.30	721.40	728.30	60"	R-4342	5.00	Green Area
CB 606	CBMH 604	12	0.44%	RCP	84.6	725.78	725.41	729.98	2x3	R-3067-V	4.20	
CBMH 604	MH 603	12	2.00%	PP	147.0	725.31	722.37	730.13	48"	R-3067-VB	7.82	3' Sump
MH 603	MH 602	27	0.90%	PP	93.3	721.15	720.31	726.20	84"	R-1642	5.05	Green Area
MH 602	MH 601	27	0.90%	PP	89.8	720.21	719.40	725.10	48"	R-1642	4.89	Green Area
MH 601	FES 600	30	0.50%	RCP	42.6	718.21	718.00	725.10	48"	R-1642	6.89	Green Area
CB 715	CBMH 713	12	0.80%	RCP	143.6	724.90	723.75	729.10	2x3	R-3067-V	4.20	
CB 714	CBMH 713	12	0.44%	RCP	35.0	723.66	723.51	727.86	2x3	R-3067-V	4.20	
CBMH 713	CBMH 707	12	0.80%	RCP	147.5	723.41	722.23	728.00	60"	R-3067-V	4.59	
CB 712	CBMH 711	12	0.70%	PP	176.7	722.65	721.41	726.15	27"	R-4342	3.50	Green Area
CBMH 711	CBMH 709	15	0.33%	RCP	128.8	721.16	720.74	729.72	60"	R-3067-V	8.56	
CB 710	CBMH 709	12	0.44%	RCP	29.7	722.62	722.49	726.82	2x3	R-3067-V	4.20	
CBMH 709	CBMH 708	15	0.60%	RCP	32.7	720.64	720.44	726.92	48"	R-3067-V	6.28	
CBMH 708	CBMH 707	15	0.90%	RCP	35.4	720.34	720.02	727.00	48"	R-3067-V	6.66	
CBMH 707	CBMH 702	18	1.00%	RCP	165.0	719.77	718.12	726.86	48"	R-3067-V	7.09	
OCS 706	MH 705	18	0.40%	PP	31.3	718.00	717.87	720.00	OCS	0	2.00	
MH 705	CBMH 704	21	0.21%	PP	139.5	717.87	717.58	724.00	48"	R-1642	6.13	
CBMH 704	CBMH 702	21	0.30%	RCP	31.9	717.58	717.49	725.46	48"	R-3067-VB	7.88	
CB 703	CBMH 702	12	0.44%	RCP	8.0	721.24	721.20	725.44	2x3	R-3067-V	4.20	
CBMH 702	MH 701	30	0.25%	PP	140.0	717.49	717.14	725.45	72"	R-3067-V	10.96	3' Sump
MH 701	FES 700	30	0.25%	RCP	31.3	717.14	717.06	722.50	60"	R-1642	5.36	Green Area

MH/CB FROM	TO	P. DIA. [IN]	P. SLOPE S [%]	P. TYPE	PIPE LENGTH [FT]	FROM INVERT	TO INVERT	RIM ELEV	STR. TYPE	CAST TYPE	BUILD (FT)	SPECIAL COMMENTS
CB 835	CBMH 833	12	2.00%	RCP	30.2	746.00	745.40	750.20	2x3	R-3067-V	4.20	
CB 834	CBMH 833	15	0.33%	PP	142.4	733.64	733.17	736.84	27"	R-4342	3.20	Green Area
CBMH 833	CBMH 831	18	0.30%	RCP	141.3	732.92	732.50	749.73	48"	R-3067-V	16.81	
CB 832	CBMH 831	12	2.00%	RCP	31.8	744.36	743.72	748.56	2x3	R-3067-V	4.20	
CBMH 831	CBMH 829	21	0.25%	RCP	104.2	732.25	731.99	748.08	48"	R-3067-V	15.83	
CB 830	CBMH 829	12	0.44%	PP	148.6	732.98	732.33	736.18	27"	R-4342	3.20	Green Area
CBMH 829	CBMH 828	21	0.35%	RCP	124.9	731.89	731.45	747.79	60"	R-3067-V	15.90	
CBMH 828	CBMH 826	21	0.38%	RCP	127.3	731.35	730.87	746.04	48"	R-3067-V	14.69	
CB 827	CBMH 826	12	1.20%	RCP	30.0	739.24	738.88	743.44	2x3	R-3067-V	4.20	
CBMH 826	MH 815	24	0.32%	RCP	46.9	730.62	730.47	743.09	48"	R-3067-V	12.47	
CB 824	CBMH 823	12	1.50%	RCP	40.1	741.16	740.56	745.36	2x3	R-3067-V	4.20	
CBMH 823	CMH 821	15	1.30%	RCP	120.7	740.46	738.89	745.05	48"	R-3067-V	4.59	
CB 822	CBMH 821	12	0.44%	RCP	30.0	739.21	739.08	743.41	2x3	R-3067-V	4.20	
CBMH 821	CBMH 820	15	1.60%	RCP	89.5	738.79	737.36	743.41	48"	R-3067-V	4.62	
CBMH 820	CBMH 819	15	2.00%	RCP	29.7	737.26	736.66	743.08	48"	R-3067-V	5.82	
CBMH 819	CBMH 816	15	3.00%	RCP	174.0	736.56	731.34	743.00	48"	R-3067-V	6.44	
CB 818	CBMH 817	12	0.44%	PP	87.0	731.06	730.68	734.26	27"	R-4342	3.20	Green Area
CBMH 817	CBMH 816	12	1.00%	RCP	29.7	730.58	730.28	741.33	48"	R-3067-VB	10.75	
CBMH 816	MH 815	24	0.44%	RCP	129.5	730.18	729.61	741.24	60"	R-3067-VB	11.06	
MH 815	CBMH 813	24	1.30%	RCP	225.4	729.51	726.58	743.48	60"	R-1642	13.97	
CB 814	CBMH 813	12	0.44%	RCP	29.7	732.71	732.58	736.91	2x3	R-3067-V	4.20	
CBMH 813	CBMH 812	24	1.50%	RCP	121.8	726.48	724.65	736.82	48"	R-3067-V	10.34	
CBMH 812	MH 805	24	1.51%	RCP	101.3	724.55	723.02	732.92	48"	R-3067-V	8.37	
CB 809	CBMH 808	12	0.44%	RCP	30.0	727.93	727.80	732.13	2x3	R-3067-V	4.20	
CBMH 808	MH 805	12	2.00%	RCP	52.7	727.70	726.64	732.13	48"	R-3067-V	4.43	
CB 806	MH 805	15	0.40%	RCP	172.9	724.02	723.33	728.22	2x3	R-3067-VB	4.20	
MH 805	CBMH 802	27	1.50%	RCP	160.8	722.77	720.36	732.23	60"	R-1642	9.46	
CB 804	CBMH 803	12	0.44%	PP	64.4	725.00	724.72	728.20	27"	R-4342	3.20	Green Area
CBMH 803	CBMH 802	12	0.44%	RCP	40.7	724.62	724.44	730.05	48"	R-3067-V	5.43	
CBMH 802	MH 801	27	1.30%	PP	141.5	720.26	718.42	730.17	60"	R-3067-V	12.91	3' Sump
MH 801	FES 800	42	0.30%	RCP	58.2	717.17	717.00	726.00	72"	R-1642	8.83	
CB 905	MH 903	12	0.44%	PP	40.6	733.62	733.44	736.82	27"	R-4342	3.20	Green Area
CB 904	MH 903	12	0.44%	PP	39.0	736.75	736.58	739.95	27"	R-4342	3.20	Green Area
MH 903	CBMH 902	12	0.44%	PP	145.0	733.34	732.70	742.00	48"	R-1642	8.66	Green Area
CBMH 902	CBMH 901	12	1.00%	RCP	30.1	732.60	732.30	751.90	48"	R-3067-V	19.30	
CBMH 901	FES 900	12	1.70%	RCP	207.3	730.52	727.00	751.92	48"	R-3067-V	24.40	3' sump
CB 1005	CBMH 1004	12	0.44%	RCP	30.0	738.92	738.79	743.12	2x3	R-3067-V	4.20	
CBMH 1004	CBMH 1002	15	0.33%	RCP	204.9	738.54	737.86	743.12	48"	R-3067-V	4.58	
CB 1003	CBMH 1002	12	0.80%	RCP	31.3	743.90	743.65	748.10	2x3	R-3067-V	4.20	
CBMH 1002	MH 1001	15	0.90%	PP	146.2	737.76	736.45	747.87	48"	R-3067-V	13.11	3' Sump
MH 1001	FES 1000	18	0.40%	RCP	45.2	736.14	735.96	740.00	48"	R-1642	3.86	
CB 1110	CBMH 1109	12	0.44%	RCP	30.0	742.04	741.91	746.24	2x3	R-3067-V	4.20	
CBMH 1109	CBMH 1007	12	0.44%	RCP	150.6	741.81	741.15	746.24	48"	R-3067-V	4.43	
CB 1108	CBMH 1107	12	1.50%	RCP	51.4	745.67	744.90	749.87	2x3	R-3067-V	4.20	
CBMH 1107	CB 1101	15	2.00%	PP	145.1	740.90	737.99	749.19	48"	R-3067-V	11.29	3' Sump
CB 1106	CBMH 1105	12	0.44%	RCP	30.2	739.25	739.12	743.45	2x3	R-3067-V	4.20	
CBMH 1105	CBMH 1104	12	0.44%	RCP	97.4	739.02	738.59	743.45	48"	R-3067-V	4.43	
CBMH 1104	CBMH 1102	12	0.60%	RCP	112.8	738.49	737.81	744.18	48"	R-3067-V	5.69	
CB 1103	CBMH 1102	12	0.44%	RCP	33.3	740.68	740.53	744.88	2x3	R-3067-V	4.20	
CBMH 1102	CB 1101	18	0.30%	PP	181.1	737.31	736.77	745.09	60"	R-3067-V	10.78	3' Sump
CB 1101	FES 1100	21	0.80%	RCP	45.9	736.37	736.00	743.00	60"	R-4342	6.63	Green Area
CB 1204	CBMH 1203	12	0.44%	RCP	30.1	713.34	713.21	717.54	2x3	R-3067-V	4.20	
CBMH 1203	CBMH 1202	12	2.00%	RCP	37.1	713.11	712.37	717.50	48"	R-3067-V	4.39	
CBMH 1202	CBMH 1201	15	0.75%	RCP	76.1	712.12	711.54	717.81	48"	R-3067-V	5.69	
CBMH 1201	FES 1200	15	0.75%	RCP	59.7	711.44	711.00	717.28	48"	R-3067-V	8.84	3' Sump
CB 1308	CBMH 1307	12	0.44%	RCP	30.0	730.12	729.99	734.32	2x3	R-3067-V	4.20	
CBMH 1307	CBMH 1306	15	0.60%	RCP	34.0	729.74	729.53	734.32	48"	R-3067-V	4.58	
CBMH 1306	CBMH 1302	15	0.80%	RCP	137.7	729.43	728.33	734.09	48"	R-3067-V	4.66	
CB 1305	CBMH 1304	12	2.00%	RCP	34.3	736.12	735.43	740.32	2x3	R-3067-V	4.20	
CBMH 1304	CBMH 1302	12	2.70%	RCP	263.5	735.33	728.22	739.77	48"	R-3067-V	4.44	
CB 1303	CBMH 1302	12	0.44%	RCP	30.0	728.70	728.57	732.90	2x3	R-3067-V	4.20	
CBMH 1302	CBMH 1301	24	0.36%	PP	110.1	727.70	727.30	732.90	60"	R-3067-V	8.20	3' sump
CBMH 1301	FES 1300	30	0.16%	RCP	117.9	727.19	727.00	732.53	60"	R-1642	5.34	Green Area
OCS 1403	MH 1401	24	1.00%	RCP	215.0	706.50	704.35	0.00	OCS			
FES 1402	MH 1401	12	8.00%	RCP	46.0	700.00	696.32	704.00	FES			
MH 1401	0	0	0.00%	0.0000	0.0	0.00	0.00	709.00	48"	R-1642	0.00	
FES 1502	MH 1501	24	0.38%	RCP	176.4	708.80	708.13	0.00	FES			
MH 1501	FES 1500	24	0.38%	RCP	34.9	708.13	708.00	717.00	48"	R-1642	8.87	
OCS 1601	FES 1600	21	2.37%	RCP	42.2	713.00	712.00	715.00	OCS			
OCS 1701	FES 1702	12	0.78%	RCP	64.4	716.50	716.00	719.00	OCS			
OCS 1701	FES 1700	15	1.18%	RCP	42.2	717.00	716.50	719.00	OCS			
OCS 1806	CBMH 1805	12	1.00%	PP	212.3	728.00	725.88	731.00	OCS			
CBMH 1805	MH 1804	12	1.00%	PP	159.6	725.88	724.28	732.00	48"	R-4342	6.12	
MH 1804	MH 1801	12	1.00%	RCP	218.8	724.28	722.09	735.35	48"	R-1642	11.07	
CB 1803	MH 1802	12	1.00%	PP	106.6	722.50	721.43	726.50	48"	R-4342	4.00	
MH 1802	MH 1801	12	1.00%	PP	75.0	721.43	720.68	730.80	48"	R-1642	9.37	
MH 1801	FES 1800	12	1.00%	RCP	153.6	717.53	716.00	729.00	48"	R-1643	11.47	
OCS 1902	MH 1901	15	1.00%	PP	350.0	735.00	731.50	0.00	OCS			
MH 1901	FES 1900	15	1.00%	RCP	206.7	731.07	729.00	738.20	48"	R-1642	7.13	
OCS 2001	FES 2000	12	0.30%	RCP	116.3	716.35	716.00	0.00	OCS			
OCS 2101	FES 2100	12	2.00%	RCP	50.0	713.00	712.00	0.00	OCS			
OCS 2201	FES 2200	12	2.56%	RCP	39.0	711.00	710.00	0.00	OCS			
FES 2301	FES 2300	12	1.24%	RCP	40.4	724.00	723.50	0.00	FES			
FES 2401	FES 2400	15	1.91%	RCP	96.3	715.00	713.16	0.00	FES			
FES 2501	FES 2500	15	0.33%	RCP	89.8	713.16	712.86	0.00	FES			
FES 2601	FES 2600	12	1.81%	RCP	110.2	706.00	704.01	0.00	FES			
FES 2701	FES 2700	15	0.00%	RCP	62.2	729.00	729.00	0.00	FES			

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COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
SHEET NAME

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the state of MINNESOTA

MARK RAUSCH, PE

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

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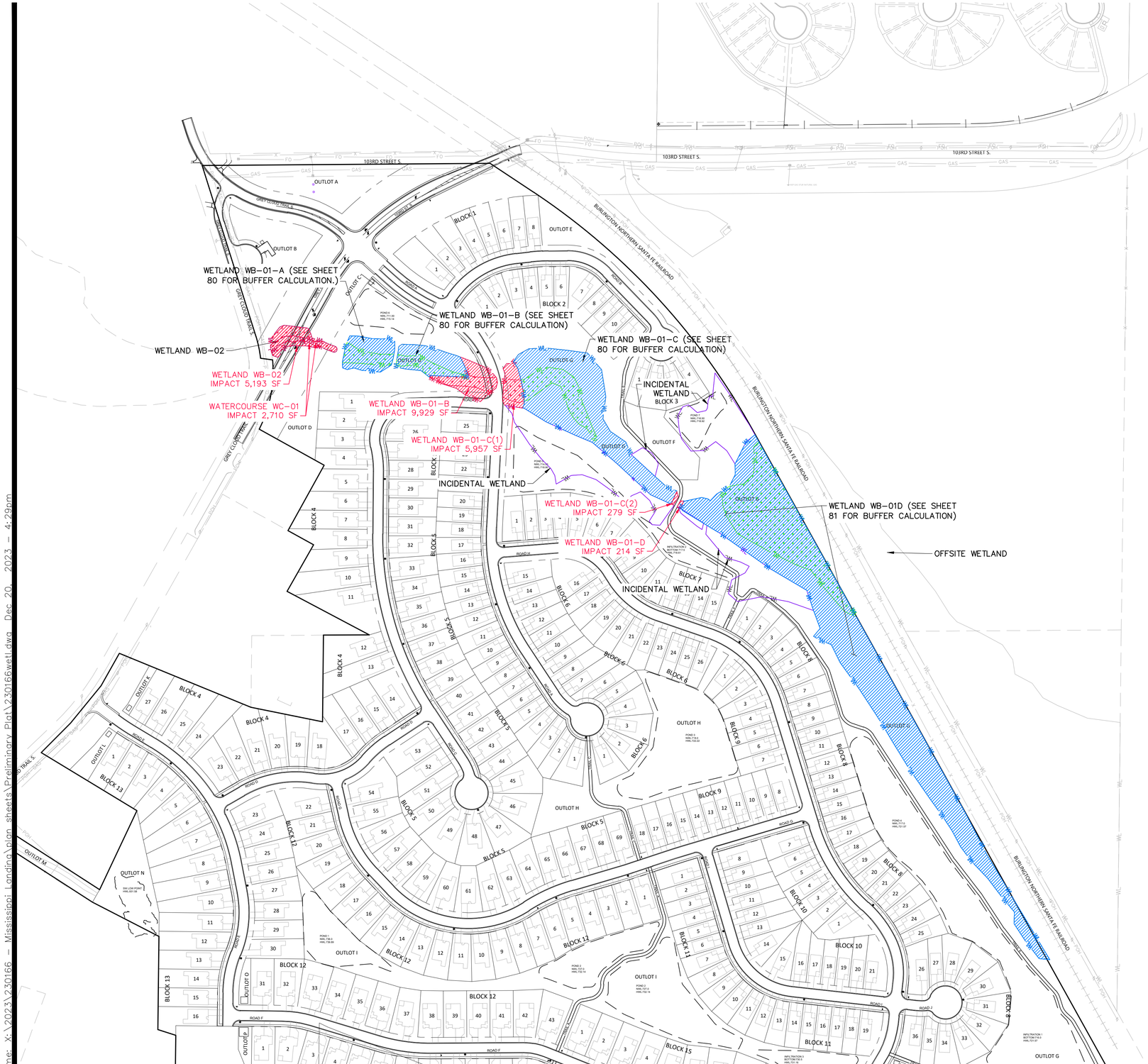
SHEET 78 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166strm.dwg Dec 20, 2023 - 4:29pm



WETLAND SUMMARY

WETLAND	WATERSHED INVENTORY CLASS	AREA*	AREA (USACE)
WB-01-A	MANAGE 2	12,159 SF (0.28 AC)	5,030 SF (0.11 AC)
WB-01-B	MANAGE 2	22,780 SF (0.52 AC)	9,830 SF (0.22 AC)
WB-01-C	MANAGE 2	68,417 SF (1.57 AC)	16,156 SF (0.37 AC)
WB-01-D	MANAGE 2	156,593 SF (3.60 AC)	50,919 SF (1.17 AC)
WB-02	MANAGE 2	5,193 SF (0.12 AC)	5,193 SF (0.12 AC)
WC-01	NA	2,710 SF (.062 AC)**	2,733 SF (0.062 AC)**
	TOTAL AREA	265,142 SF (6.09 AC)***	87,128 SF (2.00 AC)

*AREA WITHIN WETLAND LIMITS AND INSIDE PROPERTY BOUNDARIES.
**NOT INCLUDED IN TOTAL WETLAND AREA.
***WETLAND AREA INCLUDES USACE AREA.

WETLAND BUFFER CALCULATION

WETLAND BUFFERS AND SETBACK REQUIREMENTS:

THE SWWD HAS BUFFER REQUIREMENTS PER WETLAND DELINEATION REPORT.
THE BUFFER REQUIREMENTS ARE AS FOLLOWS:

REQUIREMENT	PROTECT CLASS	MANAGE 1 CLASS	MANAGE 2 CLASS
WETLANDS < 1 AC	75'	50'	25'
WETLANDS > 1 AC	100'	75'	50'

WETLAND	REQRUIRED BUFFER AREA*	PROVIDED BUFFER AREA*	MIN. AVG. BUFFER WIDTH**	PROPOSED AVG. WIDTH
WB-01-A	12,766 SF	14,314 SF	25'	33.1'
WB-01-B	14,705 SF	15,925 SF	25'	31.6'
WB-01-C	78,249 SF	79,135 SF	50'	56.87'
WB-01-D	107,380 SF	110,386 SF	50'	53.04'

*NOTE: BUFFER AREA IS NOT CALCULATED FOR FRONTAGE ABUTTING AN ADJACENT PROPERTY. SEE SHEETS 80-81 FOR DETAIL OF BUFFER AVERAGING CALCULATIONS AND DIMENSIONS

**BUFFER AVERAGING CAN BE USED ONLY WHEN NECESSARY, PROVIDED THAT THE MINIMUM BUFFER WIDTH IS EQUIAL TO OR GREATER THAN ONE-HALF THE AVERAGE REQUIRED BUFFER WIDTH.

SWWD WETLAND IMPACT CALCULATION

WETLAND	IMPACT AREA	CLASS	REPLACEMENT RATIO	REPLACEMENT AREA
WB-01-B	9,929 SF	MANAGE 2	2:1	19,858 SF
WB-01-C	6,236 SF (TOTAL) 5,957 SF (1) 279 SF (2)	MANAGE 2	2:1	12,472 SF
WB-01-D	214 SF	MANAGE 2	2:1	428 SF
WB-02	5,193 SF	MANAGE 2	2:1	10,386 SF
WC-01	2,710 SF	N/A	N/A	N/A
TOTAL IMPACT:	24,151 (0.55 AC)*			

*SWWD WETLAND IMPACT AREA INCLUDES USACE IMPACT AREA.

USACE WETLAND IMPACT CALCULATION

WETLAND	IMPACT AREA
WB-01-B	5,034 SF
WB-01-C	3,238 SF
WB-02	5,193 SF
WC-01	2,710 SF
TOTAL IMPACT	16,175 SF (0.37 AC)

LEGEND:

- PROPERTY LINE
- LOT LINE
- ROW
- WL — EXISTING WETLAND
- WL — WCA / SWWD WETLAND AREA
- WL — USACE WETLAND/WATERCOURSE AREA
- WL — INCIDENTAL WETLAND AREA
- WL — WCA / SWWD WETLAND IMPACT AREA
- WL — USACE WETLAND/WATERCOURSE IMPACT AREA

N

0 75 150 300
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN
WETLAND MANAGEMENT PLAN

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MARK RAUSCH, PE

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

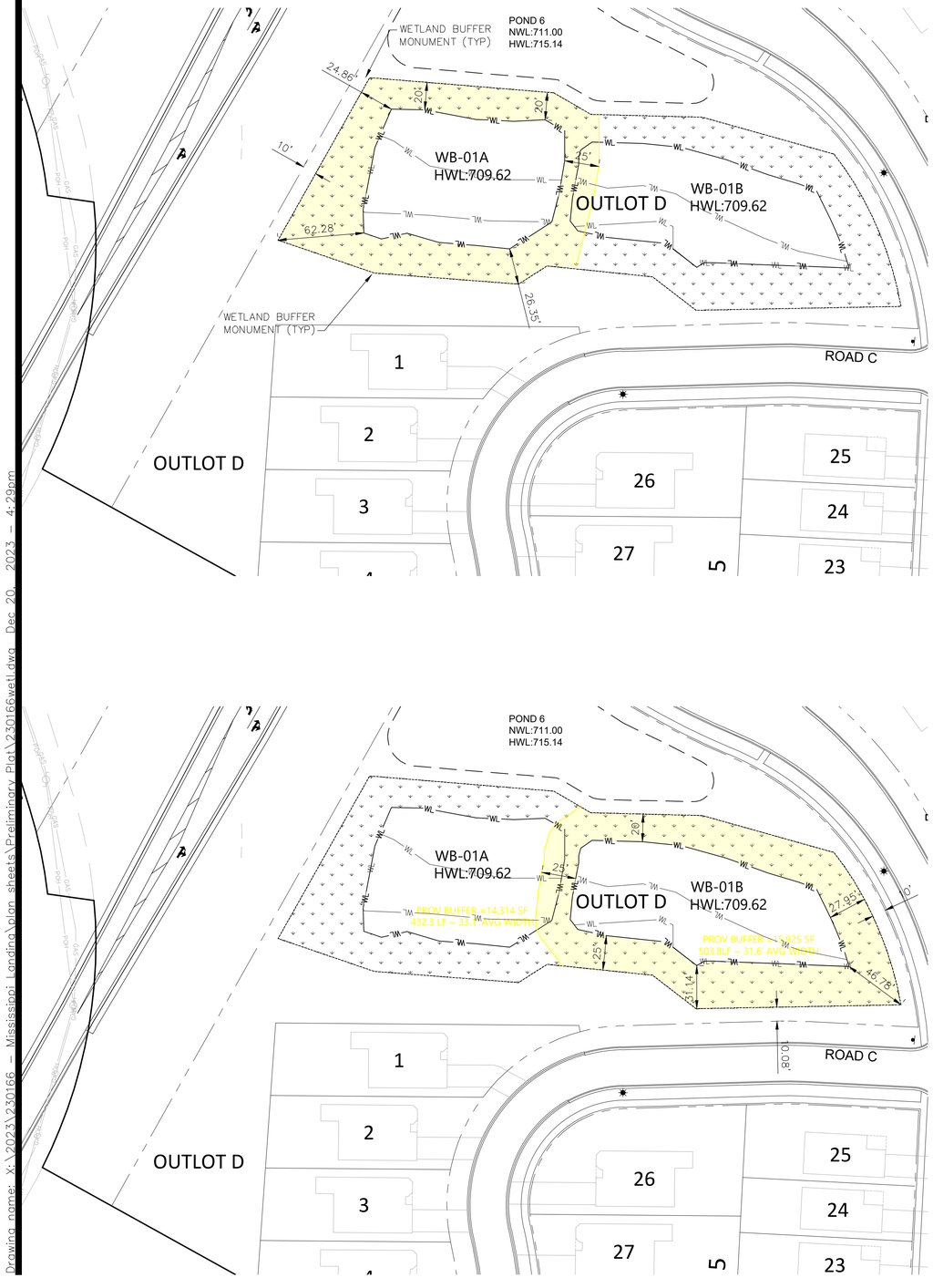
DATE	ISSUE

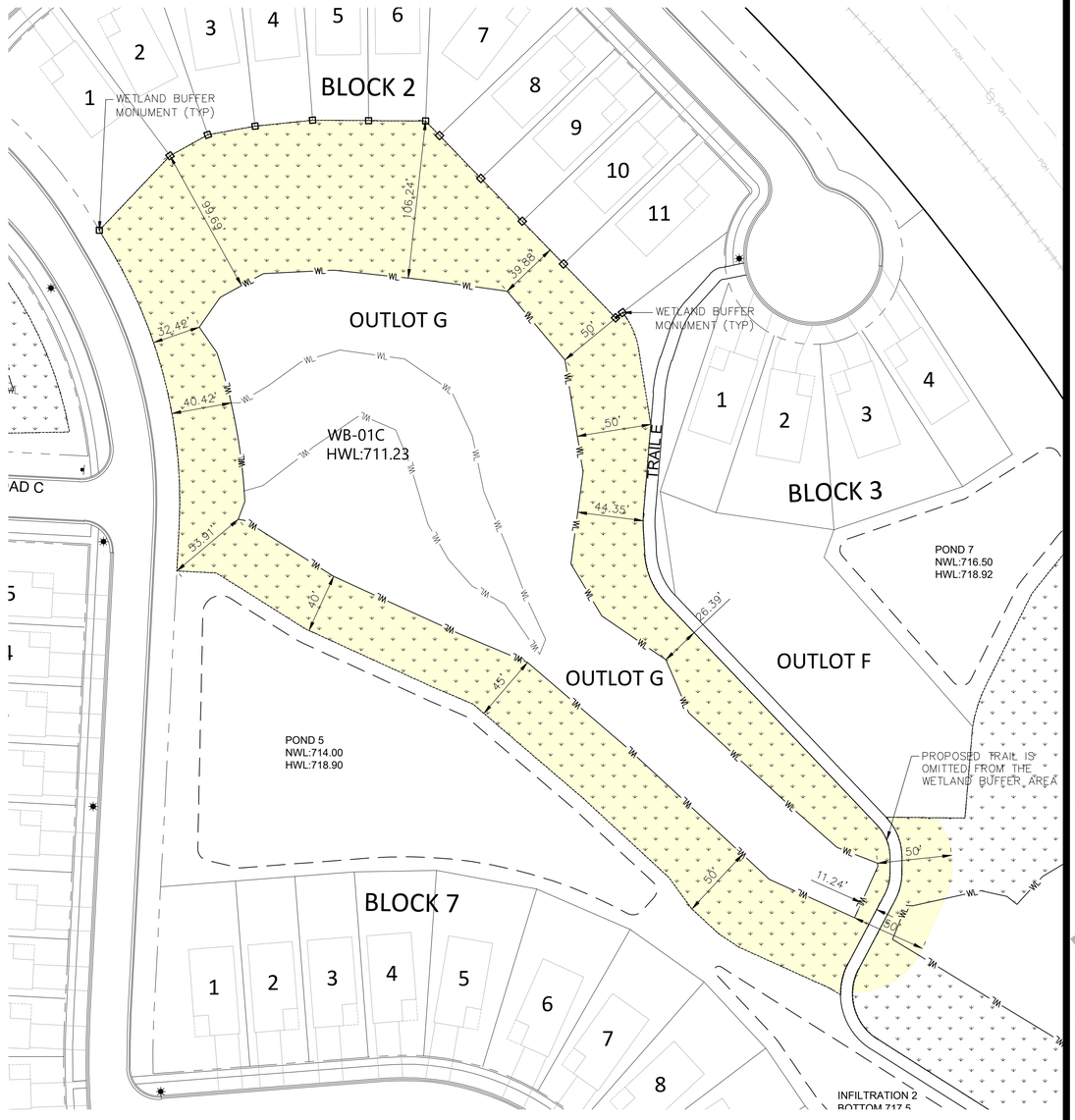
PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

80

SHEET 80 of 110

Drawing name: X:\2023\23016 - Mississippi Landing\plan sheets\Preliminary Plat\23016wetl.dwg Dec 20, 2023 - 4:29pm





N

0 25 50 100
SCALE IN FEET

LEGEND:

- PROPERTY LINE
- LOT LINE
- ROW
- WL — EXISTING WETLAND
- PROVIDED WETLAND BUFFER (FOR CALCULATIONS)
- WL / WL — PROVIDED WETLAND BUFFER (NO OVERLAP)
- WETLAND BUFFER BOUNDARY
- WETLAND BUFFER MONUMENT

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QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

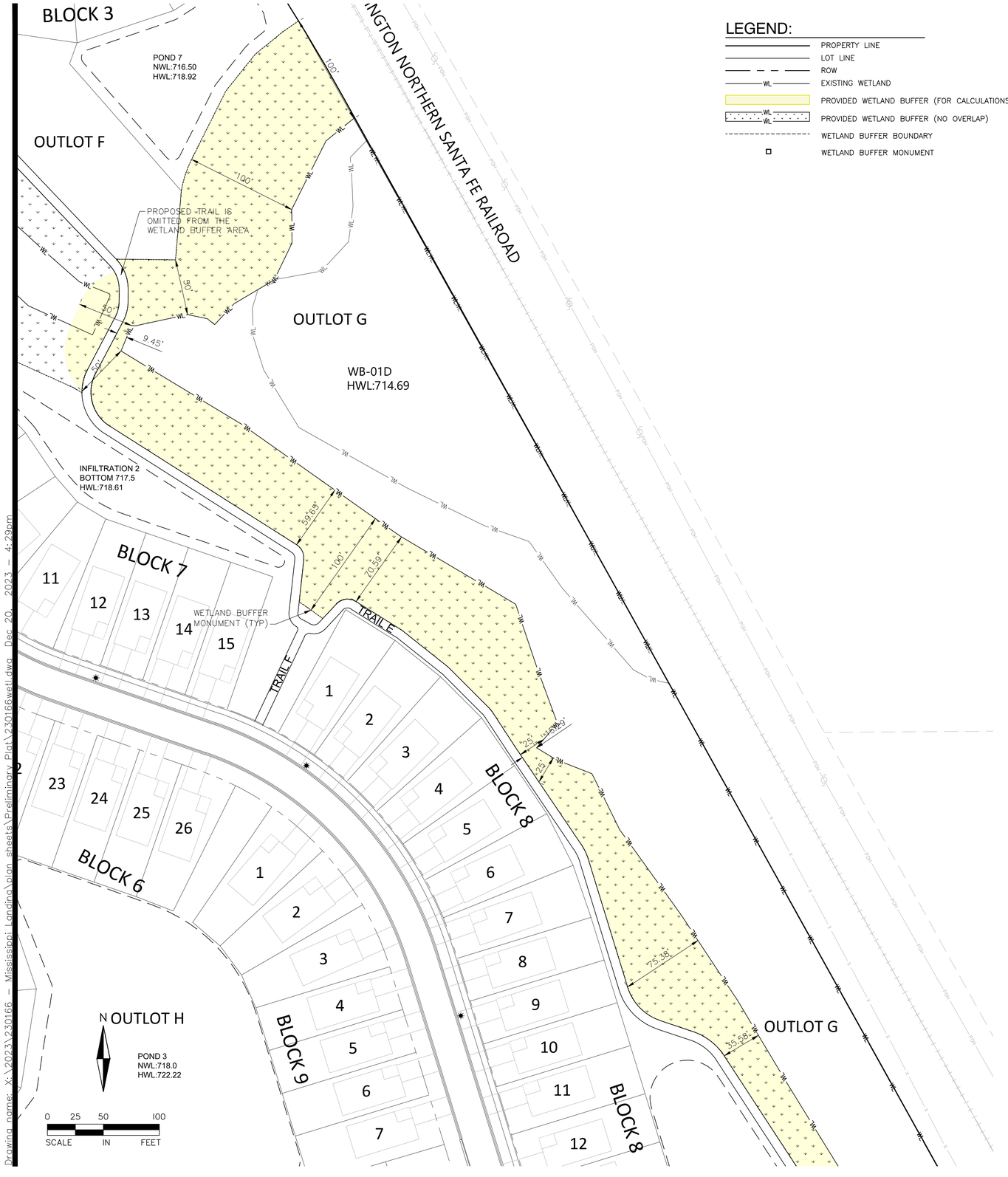
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

81

SHEET 81 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166wetl.dwg Dec 20, 2023 - 4:29pm



LEGEND:

- PROPERTY LINE
- LOT LINE
- ROW
- WL — EXISTING WETLAND
- PROVIDED WETLAND BUFFER (FOR CALCULATIONS)
- WL / WL — PROVIDED WETLAND BUFFER (NO OVERLAP)
- WETLAND BUFFER BOUNDARY
- WETLAND BUFFER MONUMENT

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PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

82

SHEET 82 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166wetl.dwg Dec 20, 2023 - 4:29pm

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:30pm

VIEW A
VIEW B
VIEW C
VIEW D
VIEW E
VIEW F
VIEW G
VIEW H

LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX
  MN STATE SEED MIX 33-261
- MESIC PRAIRIE GENERAL
  MN STATE SEED MIX 35-241

N

0 75 150 300
SCALE IN FEET

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LANDSCAPE PLAN OVERVIEW

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DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

83

LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX — MN STATE SEED MIX 33–261
- MESIC PRAIRIE GENERAL — MN STATE SEED MIX 35–241

MESIC PRAIRIE SEED MIX, SEE LEGEND

MONUMENT SIGN LOCATION, SEE MAIN ENTRANCE 1 ENLARGEMENT

SIDE SLOPE SEED MIX, SEE LEGEND

103RD STREET S.

GREY CLOUD TRAIL S.

BURLINGTON NORTHERN SANTA FE RAILROAD

ROAD A

ROAD B

ROAD C

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

BLOCK 1

BLOCK 2

BLOCK 3

BLOCK 5

POND 6
NWL:711.00
HWL:715.14

WB-01A
HWL:709.62

WB-01B
HWL:709.62

WB-01C
HWL:711.23

POND 7
NWL:716.50
HWL:718.92

POND 5
NWL:714.00

N

0 25 50 100
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PRELIMINARY PLAT AND PUD PLAN

LANDSCAPE PLAN VIEW A

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PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

84

SHEET 84 of 110

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N

0 25 50 100
SCALE IN FEET

LEGEND

DECIDUOUS OVERSTORY TREES

CONIFEROUS TREES

SIDE SLOPE SEED MIX
MN STATE SEED MIX 33-261

MESIC PRAIRIE GENERAL
MN STATE SEED MIX 35-241

ROAD C
ROAD H
ROAD D
ROAD E
GREY CLOUD TRAIL S.
OUTLOT D
BLOCK 4
BLOCK 5
POND 5
NWL:714
HWL:718
SIDE SLOPE S
SEE LEGEND
MONUMENT SIGN LOCATION,
SEE MAIN ENTRANCE 2 ENLARGEMENT

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PRELIMINARY PLAT AND PUD PLAN

LANDSCAPE PLAN VIEW B

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BY DATE

DATE	ISSUE
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PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

85

SHEET 85 of 110

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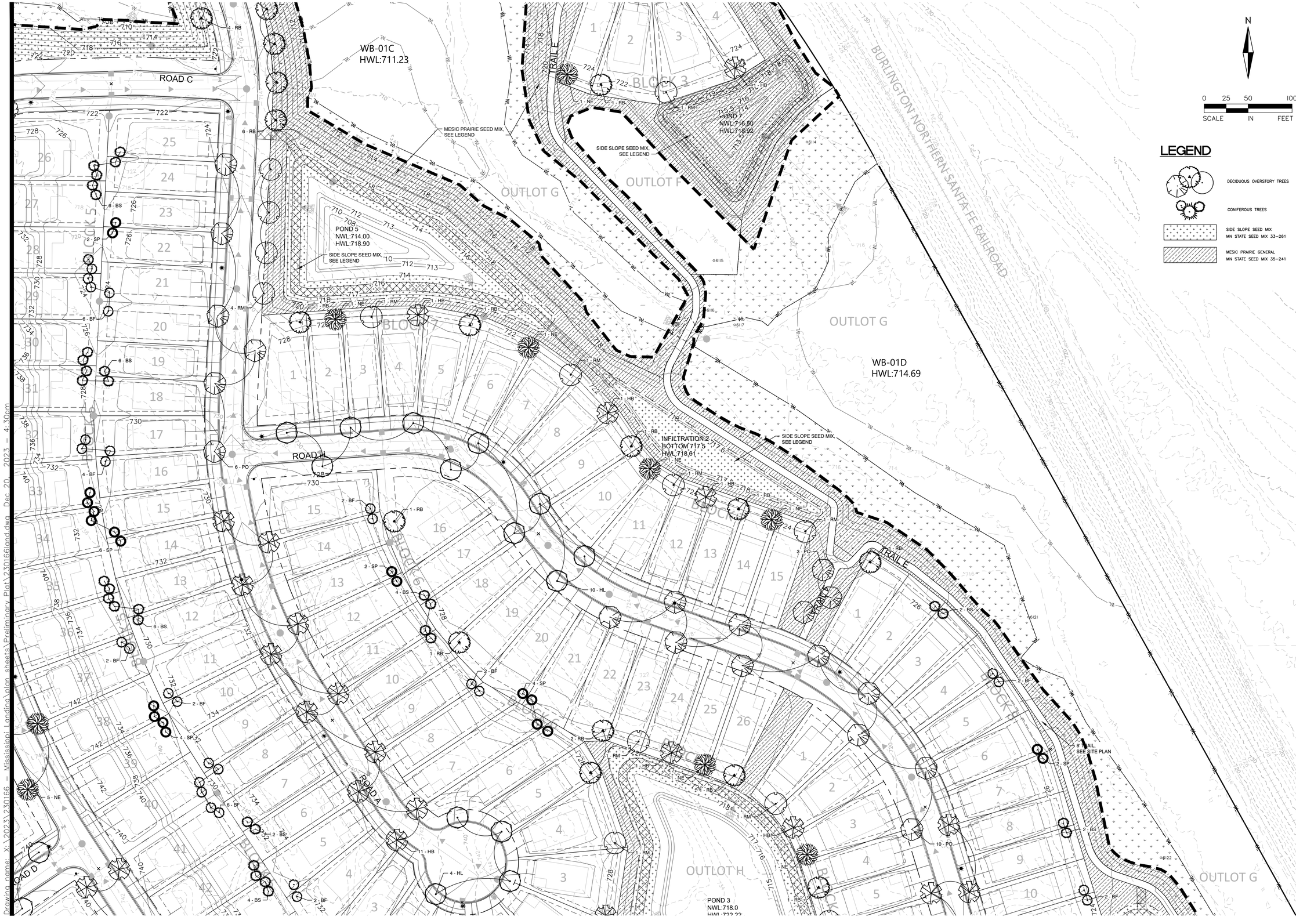

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PRELIMINARY PLAT AND PUD PLAN

LANDSCAPE PLAN VIEW C

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

86

SHEET 86 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:30pm

LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX
  MN STATE SEED MIX 33-261
- MESIC PRAIRIE GENERAL
  MN STATE SEED MIX 35-241

N

0 25 50 100
SCALE IN FEET

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LANDSCAPE PLAN VIEW D

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BY DATE

DATE	ISSUE
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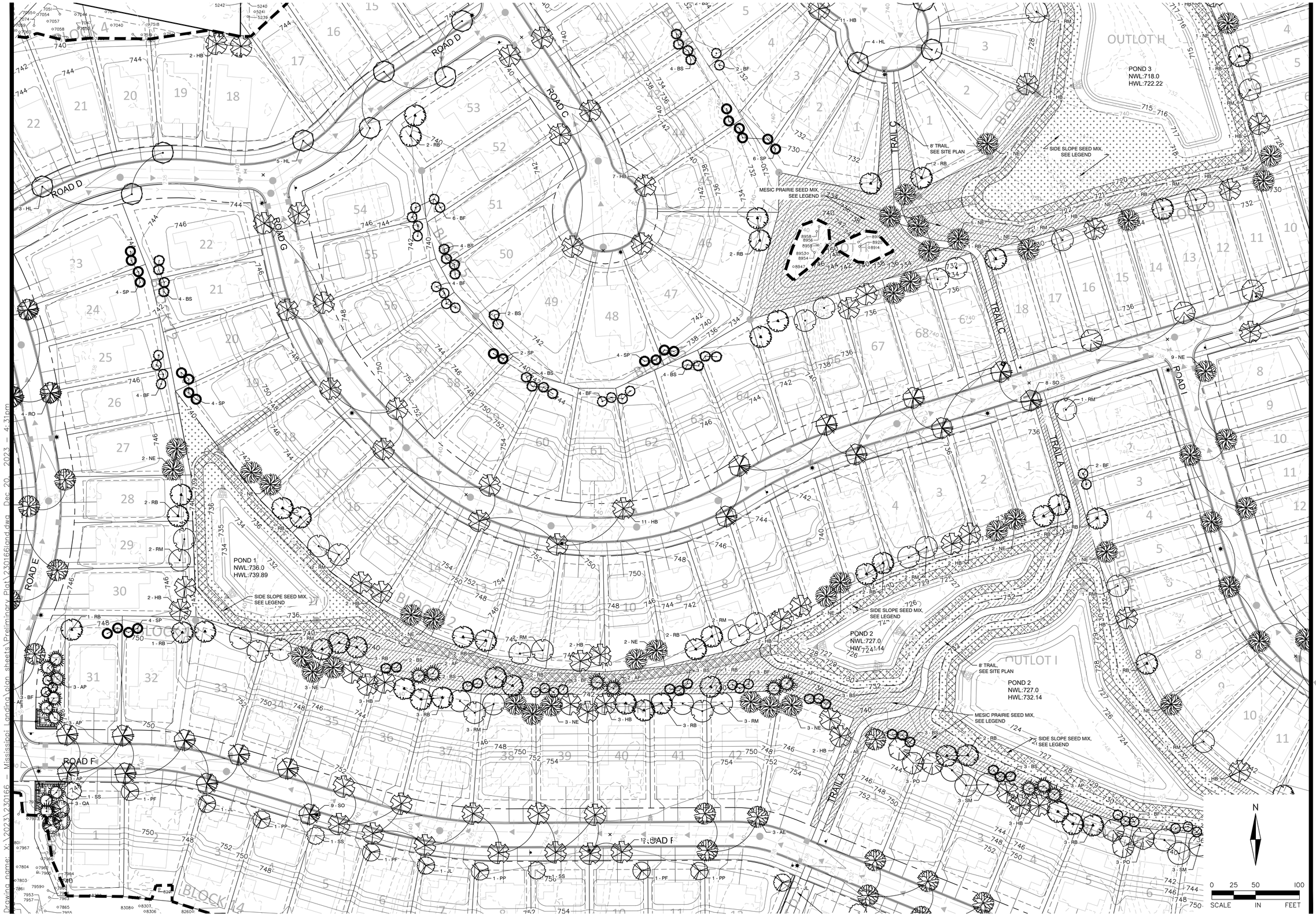
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

87

SHEET 87 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:30pm



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LANDSCAPE PLAN VIEW E

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DATE	ISSUE
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PROJECT TEAM DATA

DESIGNED:	MPR
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PROJECT NO:	223-0166

88

SHEET 88 of 110

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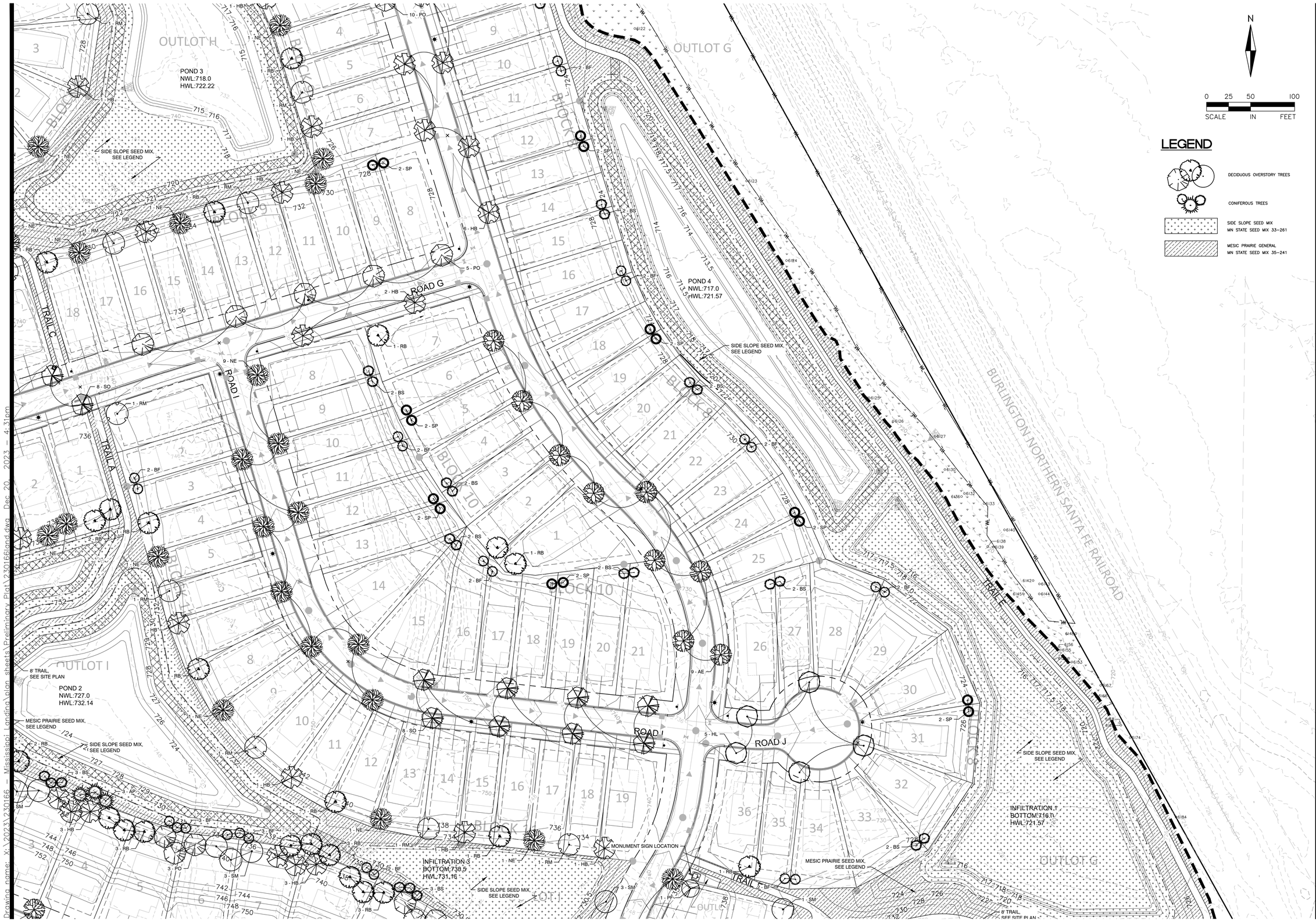

N

0 25 50 100
SCALE IN FEET

LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX MN STATE SEED MIX 33-261
- MESIC PRAIRIE GENERAL MN STATE SEED MIX 35-241

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LANDSCAPE PLAN VIEW F

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DATE	ISSUE
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PROJECT TEAM DATA

DESIGNED:	MPR
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PROJECT NO:	223-0166

89

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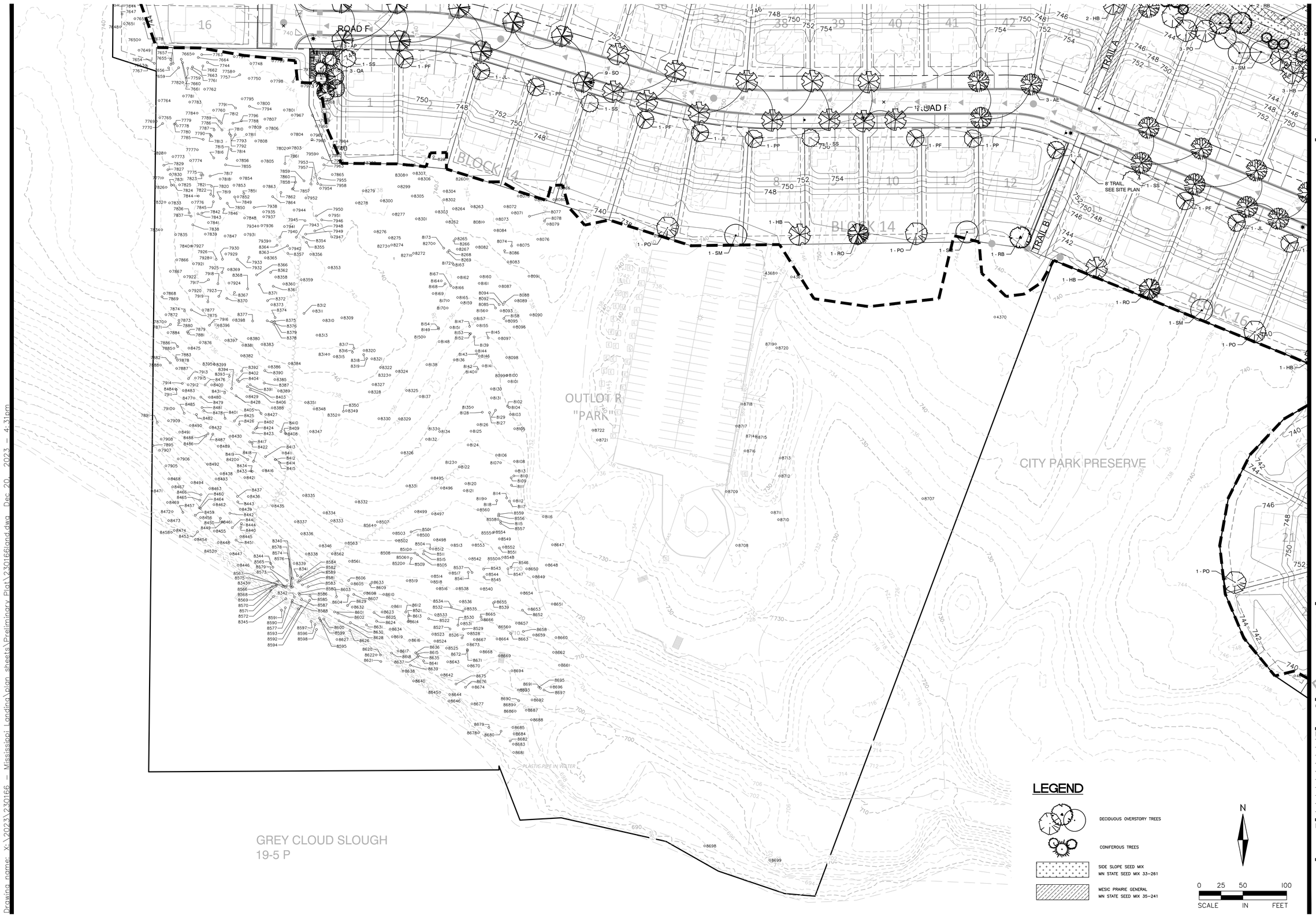

LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX MN STATE SEED MIX 33-261
- MESIC PRAIRIE GENERAL MN STATE SEED MIX 35-241

N

0 25 50 100
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN

LANDSCAPE PLAN VIEW G

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DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
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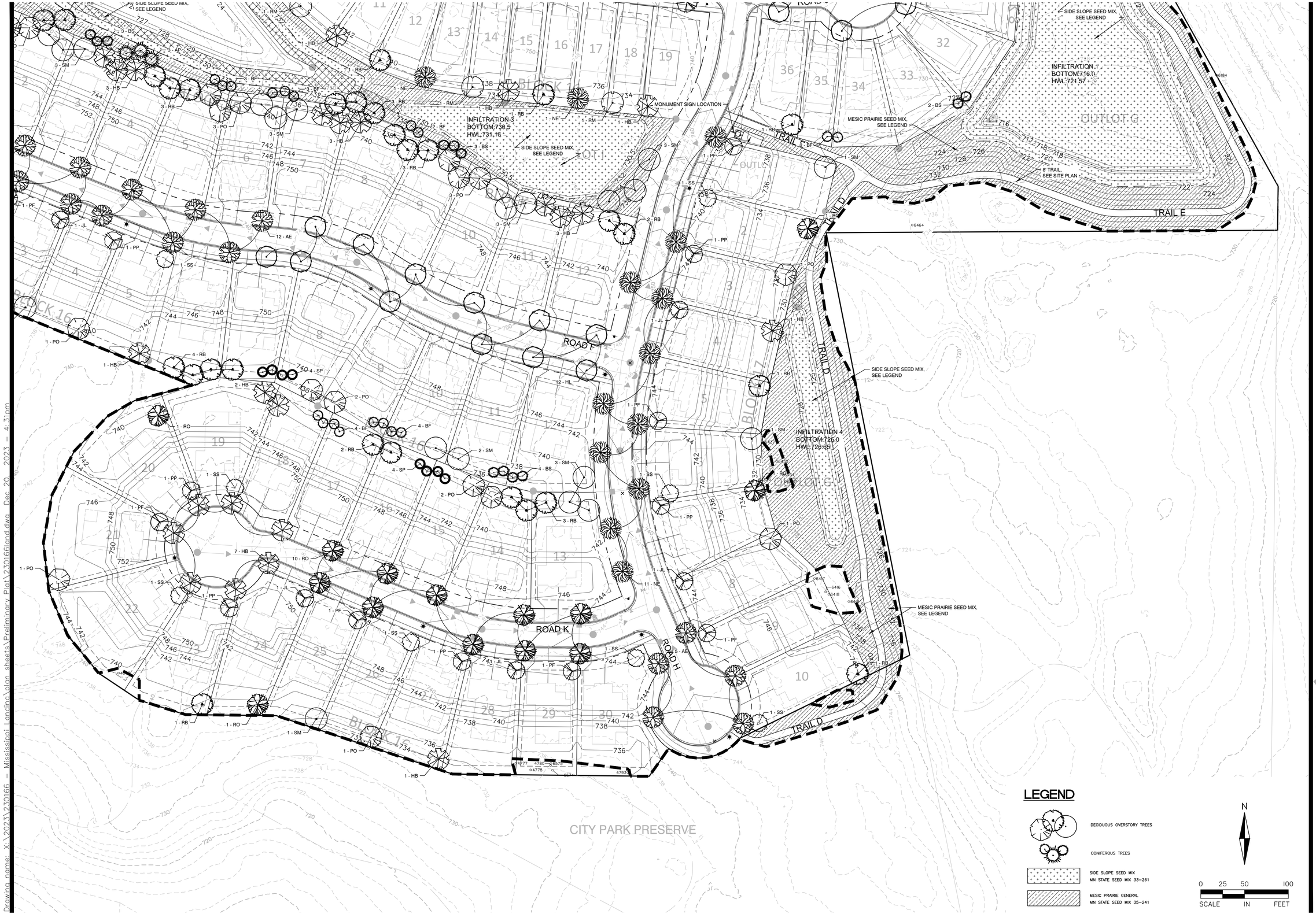
PROJECT NO:	223-0166

90

SHEET 90 of 110

Drawing name: X:\2023\230166 — Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:31pm



LEGEND

- DECIDUOUS OVERSTORY TREES
- CONIFEROUS TREES
- SIDE SLOPE SEED MIX — MN STATE SEED MIX 33-261
- MESIC PRAIRIE GENERAL — MN STATE SEED MIX 35-241

N

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PROJECT TEAM DATA

DESIGNED:	MPR
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PROJECT NO:	223-0166

91

SHEET 91 of 110

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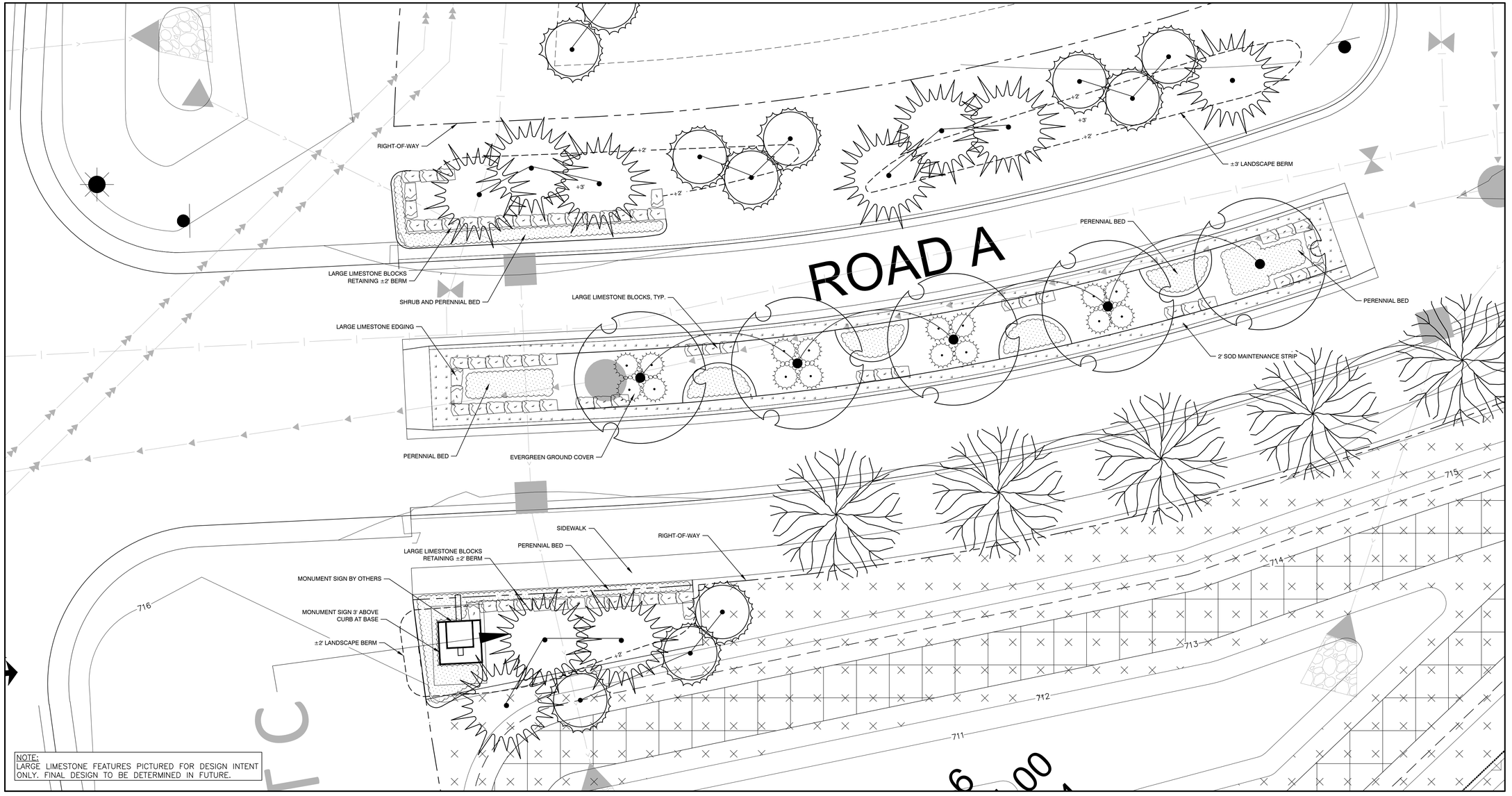

MAIN ENTRANCE 1 - ENLARGEMENT
1"=10'

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MONUMENT SIGN ENLARGEMENT

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DATE	ISSUE
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PROJECT TEAM DATA

DESIGNED:	MPR
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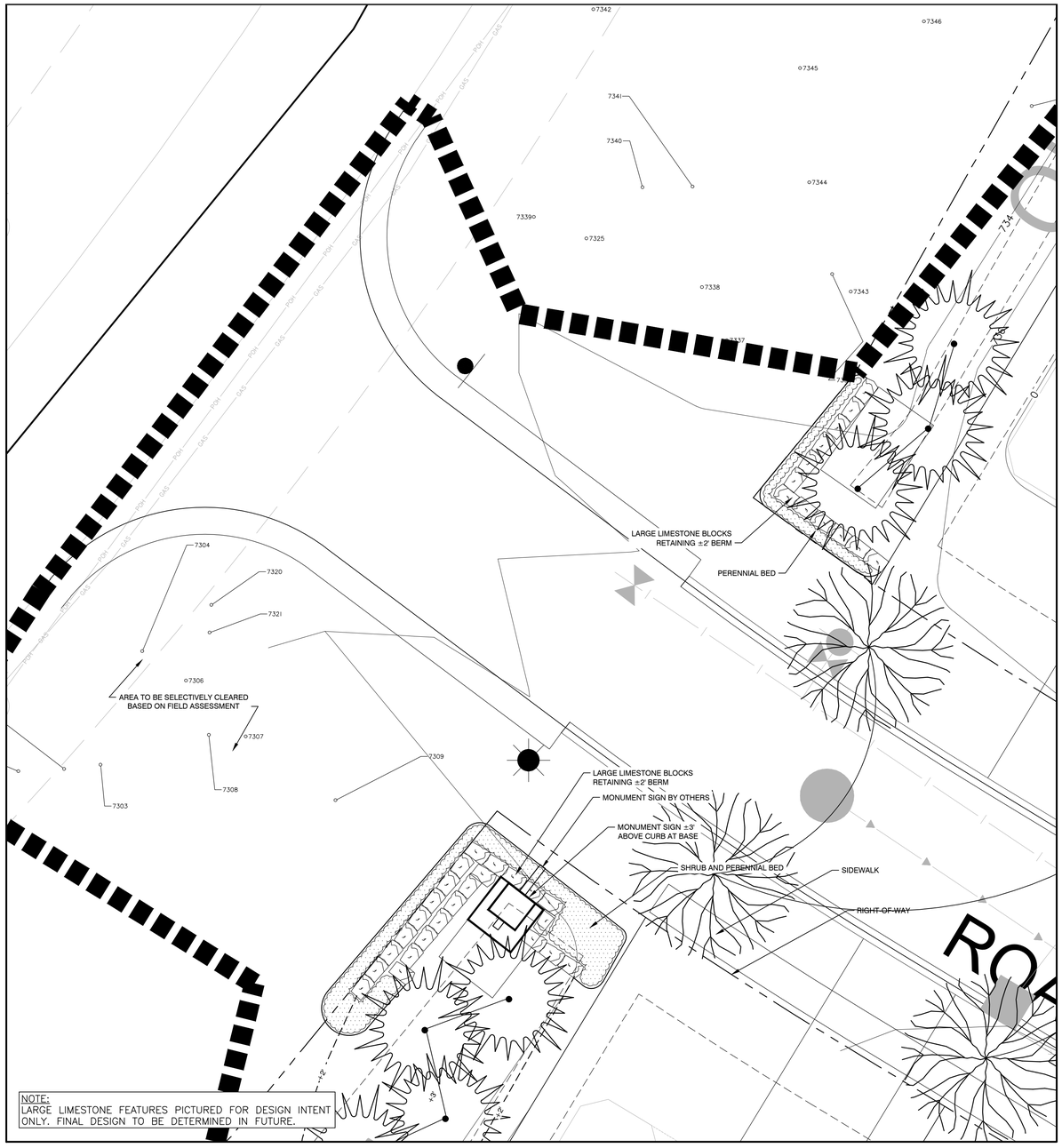
PROJECT NO:	223-0166

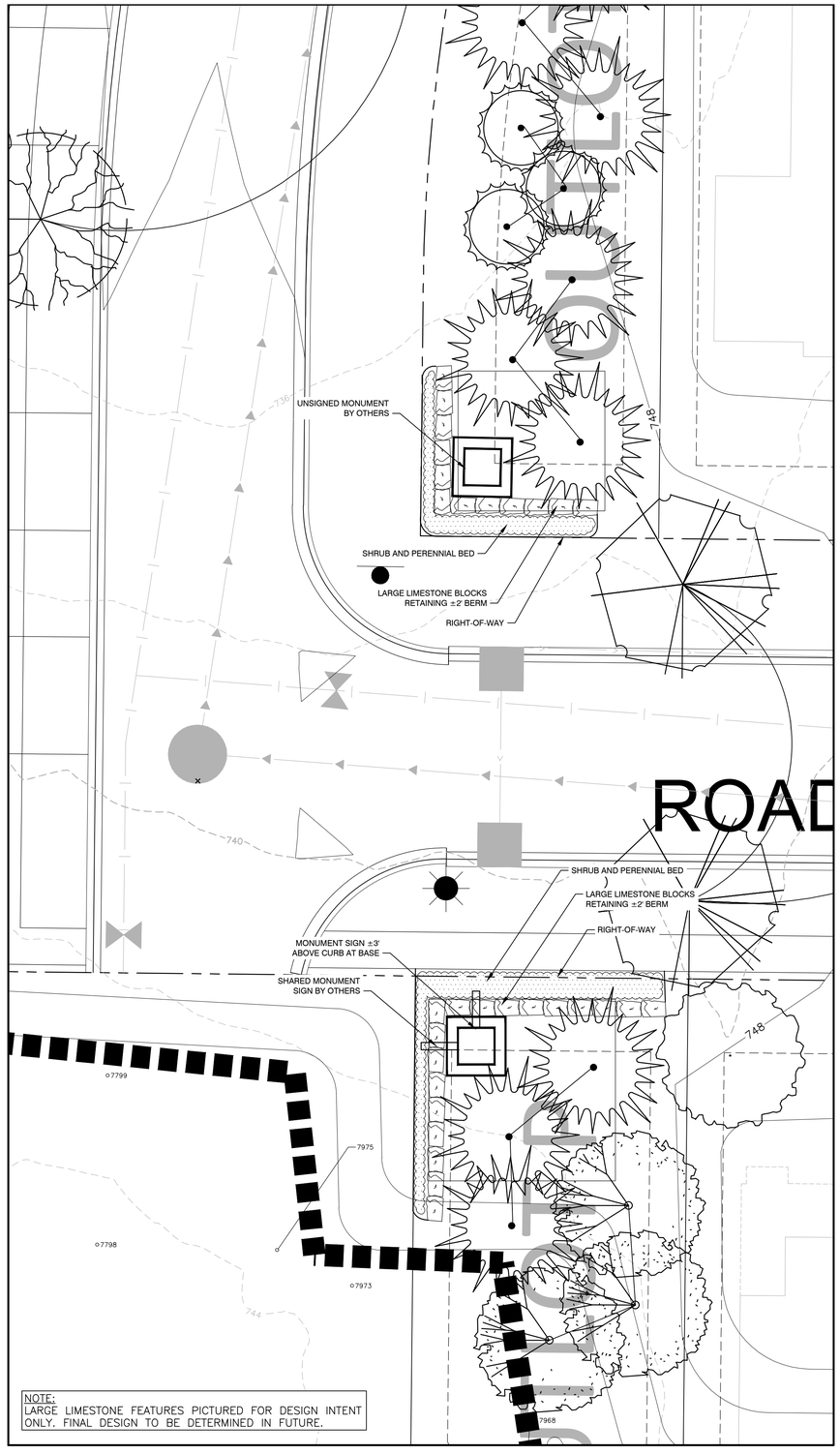
94

SHEET 94 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:31pm



MAIN ENTRANCE 2 - ENLARGEMENT
1"=10'



DEVELOPMENT SUB-ENTRANCE & PARK - ENLARGEMENT
1"=10'

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MONUMENT SIGN ENLARGEMENT

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DATE	ISSUE
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DRAWN:	TAS
PROJECT NO:	223-0166

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SHEET 94 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:31pm

DEVELOPMENT TREE SCHEDULE:

QTY	KEY	COMMON NAME / SCIENTIFIC NAME	SIZE	NOTES
OVERSTORY TREES				
42	**AE**	Accolade Elm | Ulmus japonica x wilsoniana 'Morton'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
124	**HB**	Common Hackberry | Celtis occidentalis	2.5" Cal. B&B	Straight Trunk, No V-Crotch
39	**HL**	Skyline Honeylocust | Gleditsia triacanthos var. inermis 'Skycole'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
11	**KC**	Espresso Kentucky Coffeetree | Gymnocladus dioica 'Espresso'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
81	**NE**	New Horizon Elm | Ulmus x 'New Horizon'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
44	**PO**	Majestic Skies Pin Oak | Quercus ellipsoidalis 'Bailskies'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
3	**QA**	Quaking Aspen | Populus tremuloides	2.5" Cal. B&B	Straight Trunk, No V-Crotch
102	**RB**	River Birch Multi-Trunk	6' Ht. B&B	Straight Trunk, No V-Crotch
51	**RM**	Autumn Blaze Maple | Acer x freemanii 'Jeffersred'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
24	**RO**	Red Oak | Quercus rubra	2.5" Cal. B&B	Straight Trunk, No V-Crotch
23	**SM**	Fall Fiesta Sugar Maple | Acer saccharum 'Bailsta'	2.5" Cal. B&B	Straight Trunk, No V-Crotch
27	**SO**	Swamp White Oak | Quercus bicolor	2.5" Cal. B&B	Straight Trunk, No V-Crotch
CONIFER TREES				
36	**AP**	Balsam Fir | Abies balsamea	6' B&B	Full Form
124	**BF**	Balsam Fir | Abies balsamea	6' B&B	Full Form
104	**BS**	Black Hills Spruce | Picea glauca 'Densata'	6' B&B	Full Form
82	**SP**	Swiss Stone Pine | Pinus cembra	6' B&B	Full Form
ORNAMENTAL TREES				
8	**JL**	Ivory Silk Japanese Tree Lilac | Syringa reticulata 'Ivory Silk'	1.5" Cal. B&B	Straight Trunk, No V-Crotch
10	**PF**	Prairiefire Crabapple | Malus x 'Prairiefire'	1.5" Cal. B&B	Straight Trunk, No V-Crotch
9	**PP**	Purple Prince Crabapple | Malus x 'Purple Prince'	1.5" Cal. B&B	Straight Trunk, No V-Crotch
12	**SS**	Spring Snow Crabapple | Malus x 'Spring Snow'	1.5" Cal. B&B	Straight Trunk, No V-Crotch
956	**TREE TOTALS**			

Note: Quanities on plan supercedes schedule in event of discrepancy

LANDSCAPE REQUIREMENTS:

REQUIREMENTS:
- 45' LOTS: .5 STREET TREES PER LOT FRONTAGE*, 1 REAR YARD TREE, 5 SHRUBS
- 52.5' LOTS: .5 STREET TREES PER LOT FRONTAGE*, 2 REAR YARD TREES, 10 SHRUBS
- 65' LOTS: 1 STREET TREE PER LOT FRONTAGE, 3 REAR YARD TREES*, 10 SHRUBS
- YEAR-ROUND BUFFER OF 50% OPACITY REQUIRED BLOCK 1, LOTS 1-8*

* REQUIREMENT PER DISCUSSION WITH CITY STAFF

PROVIDED:

LOT TYPE:	STREET TREES:	REAR YAR TREES:	SHURBS:
45' LOTS (183 LOTS, 13 CORNERS)	98 REQ'D (.5/FRONT) 98 PROVIDED	183 REQUIRED (1/LOT) 183 PROVIDED (183 YARD)	5 SHRUBS REQ'D 1 ORNAMENTAL TREES + 5 SHRUBS PER LOT PROVIDED
52.5' LOTS (117 LOTS, 7 CORNERS)	62 REQ'D (.5/FRONT) 62 PROVIDED	234 REQUIRED (2/LOT) 234 PROVIDED (173 TREES + 61 EXISTING**)	10 SHRUBS REQUIRED TO BE PROVIDED WITH LOT CONSTRUCTION
65' LOTS (77 LOTS, 5 CORNERS)	82 REQ'D (1/FRONT) 82 PROVIDED	231 REQUIRED (3/LOT) 231 PROVIDED*** (222 TREES + 9 EXISTING**)	10 SHRUBS REQUIRED TO BE PROVIDED WITH LOT CONSTRUCTION
BLOCK 1, LOTS 1-8		32 BUFFER TREES PROVIDED	
ADDITIONAL TREES	100 PROVIDED (IN OPEN SPACE)		
TOTAL	242 REQUIRED 342 PROVIDED	680 REQUIRED 680 PROVIDED	

** QUANTITY OF PRESERVED TREES BEING COUNTED TOWARD THE REAR YARD REQUIREMENT IS NOTED IN PARENTHESIS.
*** IN LOTS WITH RIVER OR OPEN SPACE VIEWS, REAR LOT TREES ARE REDISTRIBUTED AS FOLLOWS: 1 OVERSTORY REAR YARD, 1 ORNAMENTAL FRONT YARD, 1 OVERSTORY TREE IN OPEN SPACE. VIEW LOTS INCLUDE BLOCK 14, LOTS 1-12; BLOCK 16 LOTS 1-5;19-30; BLOCK 17 LOTS 1-10

LANDSCAPE NOTES:

1. INSTALL 4" MIN TOP SOIL TO SOD, SEED AND SHRUB AREAS. FINE GRADE ALL SOD AND SEED AREAS. INSTALL 12" TOP SOIL TO PERENNIAL AND ANNUAL FLOWER AREAS.
2. STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. OWNERS REPRESENTATIVE TO APPROVE ALL STAKING PRIOR TO INSTALLATION.
3. ALL SHRUB AREAS UNLESS SPECIFIED AS OTHER, TO BE BED MULCHED DOUBLE SHREDDED HARDWOOD MULCH OVER FILTER FABRIC, NATURAL COLOR, UNLESS SPECIFIED AS OTHER. POLY-EDGER TO BE VALLEY VIEW BLACK DIAMOND OR APPROVED EQUAL. ROCK MULCH TO BE 3/4" BUFF LIMESTONE ROCK MULCH OVER FILTER FABRIC.
4. INSTALL 4-6" DEPTH SHREDDED HARDWOOD MULCH AROUND ROOT SAUCER OF ALL TREES ISOLATED FROM PLANT BEDS. DO NOT PILE MULCH AGAINST THE BASE OF A PLANT OR TREE TRUNK; PULL THE MULCH FOUR INCHES AWAY FROM ROOT FLARE.
5. PLANT SOIL SHALL CONSIST OF 1:1:1, SELECT LOAMY TOPSOIL, PEAT MOSS, PIT RUN SAND.
6. COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).
7. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
8. ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.
9. CALL GOPHER STATE ONE CALL AT 651-454-0002 FOR LOCATING ALL UNDERGROUND UTILITIES AND AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK.
10. MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.
11. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
12. STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.
13. SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS.
14. LANDSCAPE CONTRACTOR SHALL INSTALL KENTUCKY BLUE GRASS SOD IN DENOTED AREAS INCLUDING ALL R.O.W. PER LOCAL INDUSTRY STANDARDS. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND HAVE STAGGERED JOINTS.
15. SUPPLY DESIGN AND INSTALLATION FOR NEW WATER EFFICIENT IRRIGATION SYSTEM. DESIGN SYSTEM INCLUDING CONTROLS, ELECTRICAL AND WATER SERVICE CONNECTIONS WITH 100% COVERAGE OF NEW SOD, LANDSCAPE ISLANDS AND PLANTING AREAS. SOD, SEED AND SHRUB AREAS TO BE ON SEPARATE ZONES. DESIGN TO INCLUDE DRIP IRRIGATION IN SHRUB AREAS ADJACENT TO BUILDING. EXCESS WATER SHALL NOT COME IN CONTACT WITH BUILDING AND SIDEWALKS. THE IRRIGATION SYSTEM SHALL HAVE A RAIN/FREEZE SENSOR SHUTOFF. USE RAINBIRD OR APPROVED EQUAL COORDINATE WITH G.C. AND WORK OF OTHER SECTIONS.

SEED NOTES

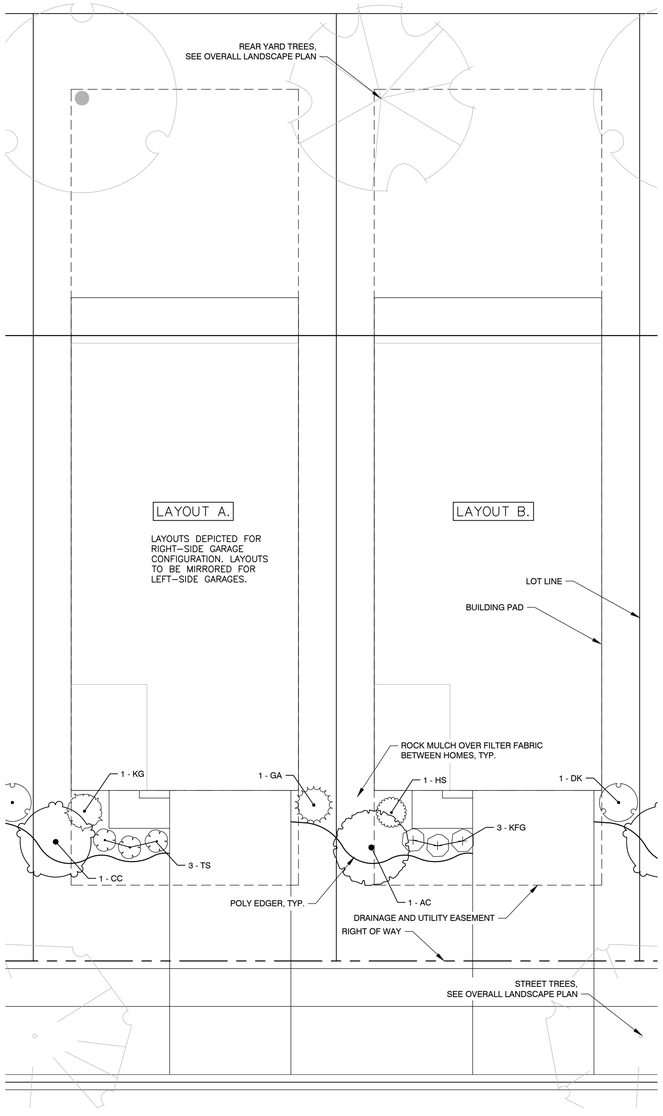
MESIC PRAIRIE MIX: MN STATE 35-241 MESIC PRAIRIE GENERAL.
SEEDING RATE TO BE 36.5 LBS/ACRE (PURE LIVE SEED).

SIDE-SLOPE SEED MIX: MN STATE 33-261 STORMWATER SOUTH & WEST.
SEEDING RATE TO BE 44 LBS/ACRE (PURE LIVE SEED).

APPLY SEED PER THE FOLLOWING: MULCH SEEDED AREAS WITH Mn/DOT TYPE 3 (MCIA CERTIFIED WEED FREE) MULCH AT A RATE OF 1 TON PER ACRE WITHIN 48 HOURS OF SEEDING. MULCH SHOULD THEN BE DISC ANCHORED TO KEEP IT FROM BLOWING AWAY.

SEEDING SHALL BE APPLIED FROM APRIL 15 - JULY 20 OR SEPTEMBER 20 - FREEZE UP. IF HYDROSEEDING UTILIZE APPROXIMATELY 500 GALLONS OF WATER PER ACRE. REFER TO MN/DOT SPEC 3884 FOR PROPER INSTALLATION OF HYDRO-SEED. ALL NATIVE SEEDS USED ON THIS PROJECT SHALL BE CERTIFIED TO BE OF MINNESOTA ORIGIN BY THE MINNESOTA CROP IMPROVEMENT ASSOCIATION (MCIA). SITE TO BE PREPARED BY LOOSENING TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES. THE SITE TO BE HARROWED OR RAKED FOLLOWING SEEDING, AND THEN PACKED USING A CULTI-PACKER OR EQUIVALENT. SEE MNDOT SEEDING MANUAL FOR REFERENCE.

MAINTAIN SEEDED AREAS BY WATERING, REMULCHING AND REPLANTING AS NECESSARY TO ESTABLISH A UNIFORMLY DENSE STAND OF THE SPECIFIED GRASSES UNTIL ACCEPTED. ANY AREAS FAILING TO ESTABLISH A STAND SHALL BE RESEEDED, REFERTILIZED AND REMULCHED WHENEVER 70% VEGETATIVE COVER IS NOT ACHIEVED. RESEEDING SHALL CONFORM IN ALL RESPECTS TO THESE SPECIFICATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE WORK AREAS RESULTING FROM EROSION AND/OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR DAMAGE, INCLUDING REGRADING, RESEEDING, ETC. AS NECESSARY, BEFORE SIGNIFICANT DAMAGE OCCURS.

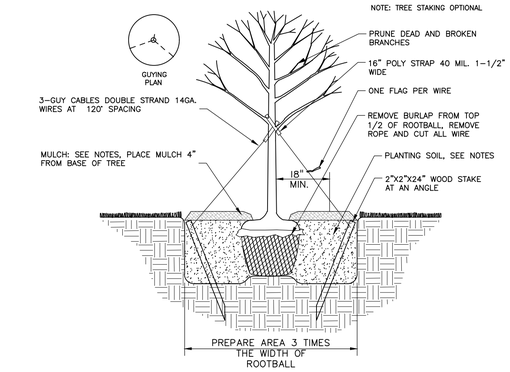


40' LOT - TYPICAL FOUNDATION PLANTING
1"=10'

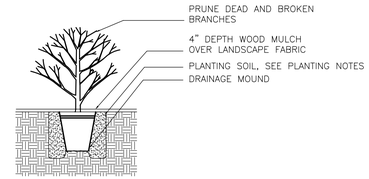
PLANT SCHEDULE 40' TYP

CODE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	CONTAINER
ORNAMENTAL TREES					
AC	1	Adirondack Crabapple	Malus x 'Adirondack'	1.5" Cal.	B&B
CC	1	Coralburst® Crabapple	Malus x 'Coralcole'	1.5" Cal.	B&B
SHRUBS					
DK	1	Dwarf Korean Lilac	Syringa meyeri 'Palibin'	#5	Pot
GA	1	Little Giant Arborvitae	Thuja occidentalis 'Little Giant'	#5	Pot
HS	1	Strawberry Sundae® Panicle Hydrangea	Hydrangea paniculata 'Rensun'	#5	Pot
KG	1	King's Gold Chamaecyparis	Chamaecyparis pisifera 'King's Gold'	#5	Pot
TS	3	White Frost™ Birchleaf Spirea	Spiraea betulifolia 'Tor'	#5	Pot
GRASSES					
KFG	3	Karl Foerster Feather Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	#3	Pot

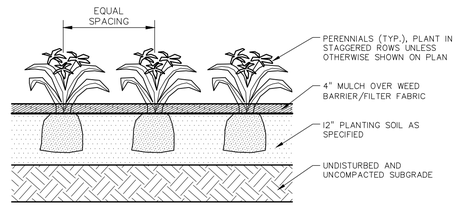
NOTE: FOUNDATION PLANT QUANTITIES NOT INCLUDED IN DEVELOPMENT TREE SCHEDULE



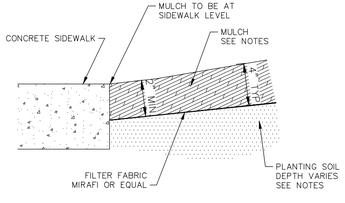
1 TREE PLANTING
NOT TO SCALE



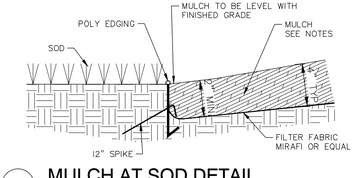
2 SHRUB PLANTING DETAIL
NOT TO SCALE



3 PERENNIAL PLANTING DETAIL
NOT TO SCALE



4 MULCH AT SIDEWALK DETAIL
NOT TO SCALE



5 MULCH AT SOD DETAIL
NOT TO SCALE

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MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD
LANDSCAPE DETAILS

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JOHN GROMHOVD, PLA, ASLA

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA
DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

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SHEET 94 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166land.dwg Dec 20, 2023 - 4:32pm

TREE PRESERVATION NOTES:

1. BEFORE ANY CONSTRUCTION OR GRADING OF DEVELOPMENT PROJECT IS TO OCCUR, A TREE PROTECTION FENCE SHALL BE INSTALLED PER THE TREE REMOVAL LINE. THIS FENCE MUST REMAIN IN PLACE UNTIL ALL GRADING AND CONSTRUCTION ACTIVITY IS TERMINATED.
2. NO ENCROACHMENT, LAND DISTURBANCE, GRADE CHANGE, TRENCHING, FILLING, COMPACTION OF CHANGE IN SOIL CHEMISTRY SHALL OCCUR WITHIN FENCED AREAS PROTECTING SIGNIFICANT TREES.
3. CONTRACTOR TO PREVENT THE CHANGE IN SOIL CHEMISTRY DUE TO CONCRETE WASHOUT AND LEAKAGE OR SPILLAGE OF TOXIC MATERIALS, SUCH AS FUELS OR PAINTS.
4. DEAD, DISEASED OR DYING SIGNIFICANT TREES WERE NOT INCLUDED AS PART OF THE EXISTING TREE INVENTORY.
5. NO TREES SHALL BE REMOVED UNTIL THIS TREE PRESERVATION PLAN IS APPROVED BY THE CITY OF COTTAGE GROVE.
6. TREE INVENTORY TO FOLLOW IS A COMPREHENSIVE SITE REVIEW AND DOES INCLUDE SOME TREES THAT NO LONGER QUALIFY AS SIGNIFICANT PER CITY ORDINANCE.
7. TREES OUTSIDE OF THE DEVELOPMENT BOUNDARY ARE NOT SHOWN OR LISTED IN INVENTORY.
8. TREES DEPICTED WERE LOCATED, INVENTORIED, AND CLASSIFIED BY WESTWOOD PROFESSIONAL SERVICES, INC.

TREE INVENTORY & REMOVAL CALCULATION

TOTAL NUMBER OF ONSITE TREES*	3931
TOTAL DBH	50600
REMOVED NUMBER OF ONSITE TREES*	2536
REMOVED DBH	32863

*TOTAL TREES INCLUDE ALL INVENTORIED TREES WITHIN THE DEVELOPMENT SITE BOUNDARY. SOME OF THE TREES INCLUDED DO NOT CLASSIFY AS "SIGNIFICANT" DUE TO SIZE AND SPECIES. SEE FULL TREE INVENTORY LIST FOR SPECIFIC TREE REMOVAL. PLAN SHEET 104.

LEGEND:

- ○ 1324 — EXISTING TREE TO REMAIN
- ⊠ 1324 — EXISTING TREE TO BE REMOVED
- ▬▬▬ — TREE REMOVAL LIMITS/FENCE

N

0 100 200 400
SCALE IN FEET

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PRELIMINARY PLAT AND PUD PLAN
TREE PRESERVATION PLAN OVERALL

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PROJECT NO: 223-0166

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SHEET 95 of 110

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VIEW A

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103RD STREET S.

GREY CLOUD TRAIL S.

103RD ST. S.

BURLINGTON NORTHERN SANTA FE RAILROAD

OUTLOT A

OUTLOT B

OUTLOT C

OUTLOT D

OUTLOT E

OUTLOT F

OUTLOT G

BLOCK 1

BLOCK 2

BLOCK 3

BLOCK 5

ROAD A

ROAD B

ROAD C

TRAIL E

WB-01A
HWL:709.62

WB-01B
HWL:709.62

WB-01C
HWL:711.23

POND 6
NWL:711.00
HWL:715.14

POND 7
NWL:716.50
HWL:718.92

N

0 25 50 100
SCALE IN FEET

MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
TREE PRESERVATION PLAN VIEW A

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VIEW B

N

0 25 50 100
SCALE IN FEET

OUTLOT D

GREY CLOUD TRAIL S

BLOCK 4

BLOCK 5

ROAD C

ROAD H

ROAD D

ROAD E

POND 5
NWL:714
HWL:718

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TREE PRESERVATION PLAN VIEW B

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VIEW C

N

0 25 50 100
SCALE IN FEET

WB-01C
HWL:711.23

ROAD C

BLOCK 3

TRAIL E

POND 7
NWL:716.50
HWL:718.92

OUTLOT F

OUTLOT G

BURLINGTON NORTHERN SANTA FE RAILROAD

POND 5
NWL:714.00
HWL:718.90

BLOCK 5

BLOCK 7

ROAD H

INFILTRATION 2
BOTTOM 717.5
HWL:718.61

WB-01D
HWL:714.69

BLOCK 6

BLOCK 8

TRAIL F

ROAD A

ROAD D

VIEW E

POND 3
NWL:718.0
HWL:722.22

OUTLOT G

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TREE PRESERVATION PLAN VIEW C

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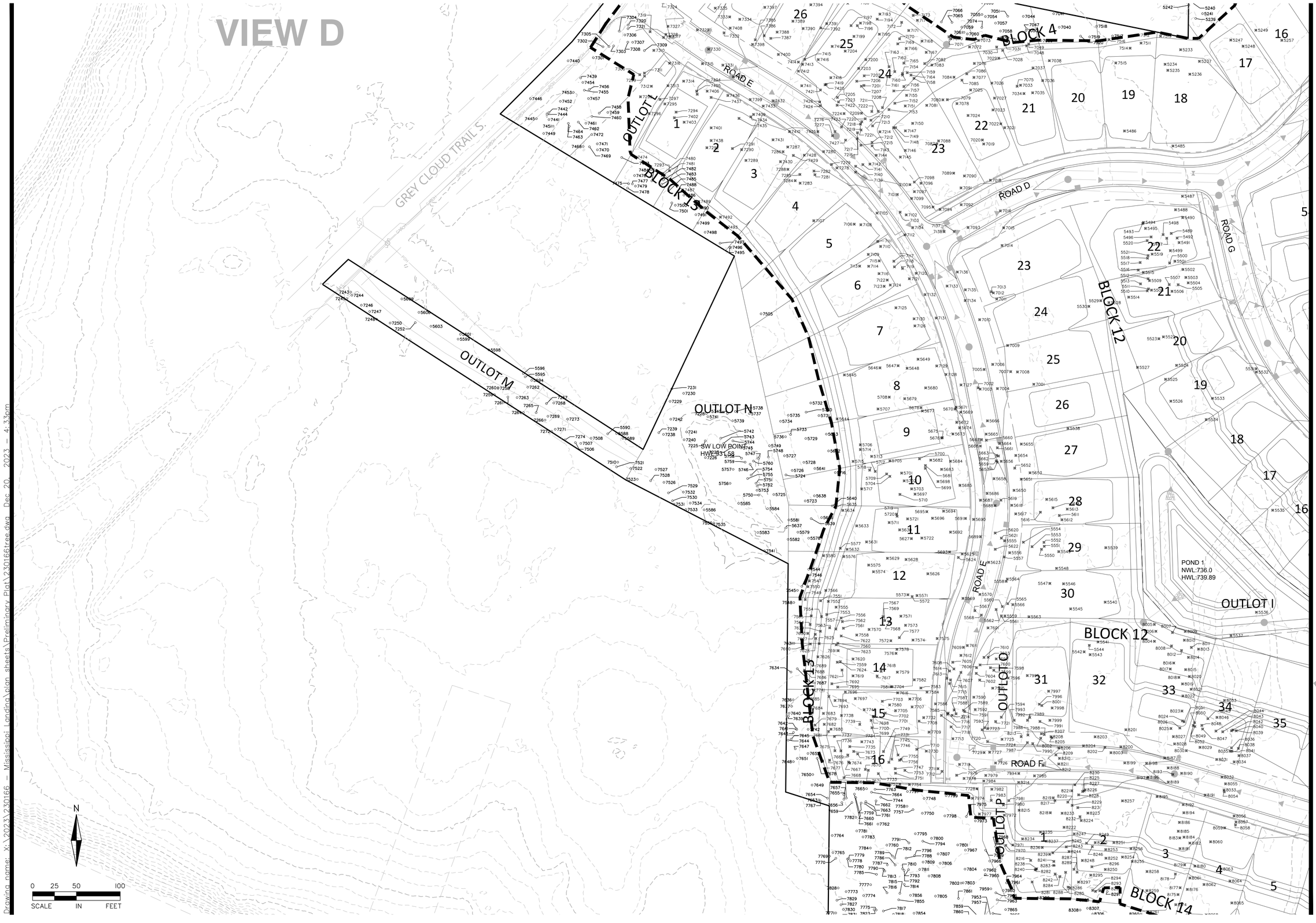
VIEW D



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TREE PRESERVATION PLAN VIEW D

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SHEET 99 of 110

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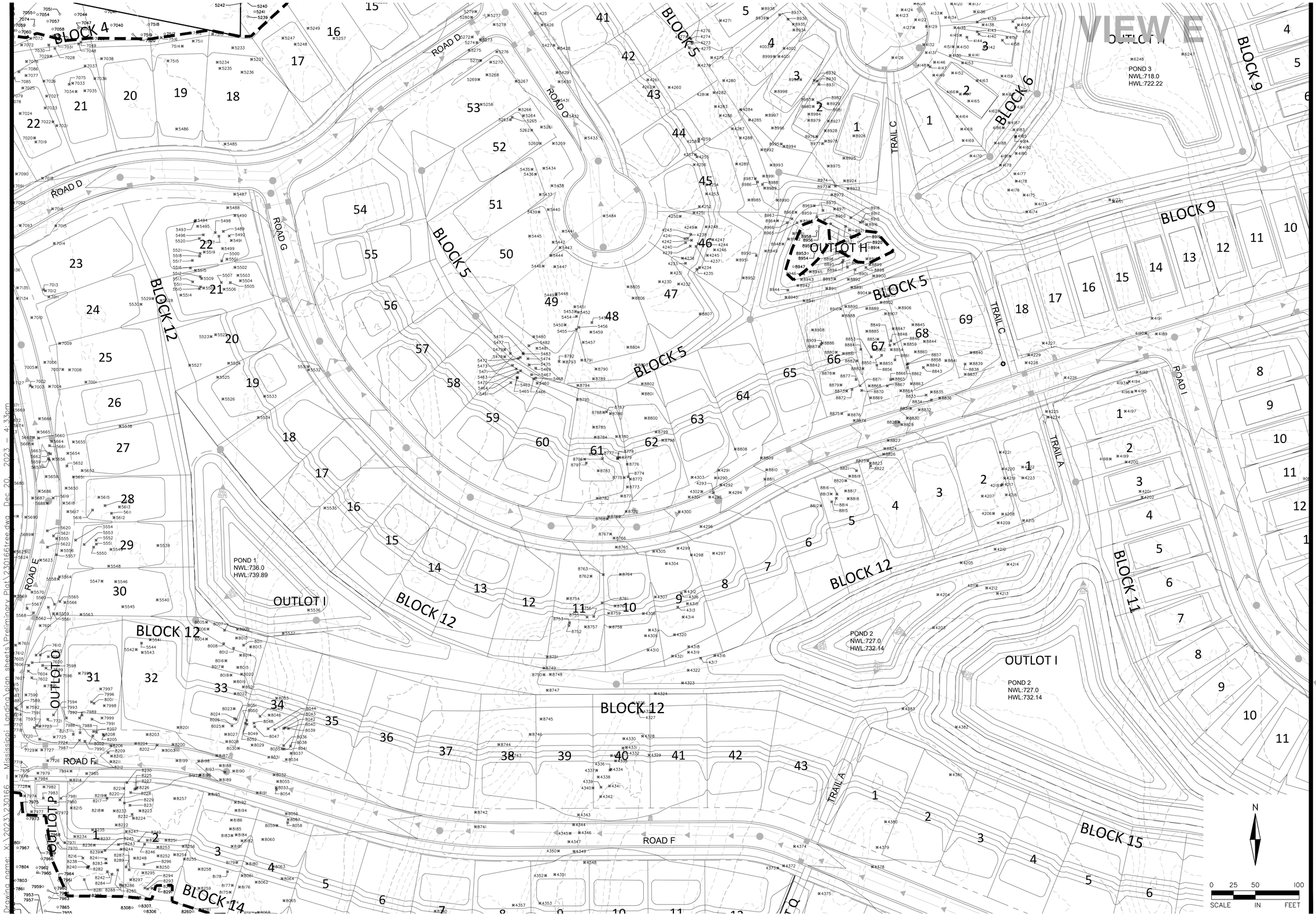

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TREE PRESERVATION PLAN VIEW E

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100

SHEET 100 of 110

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VIEW E

VIEW F

OUTLOT H

OUTLOT G

OUTLOT I

OUTLOT J

POND 3
NWL:718.0
HWL:722.22

POND 4
NWL:717.0
HWL:721.57

POND 2
NWL:727.0
HWL:732.14

INFILTRATION 3
BOTTOM:730.5
HWL:731.16

INFILTRATION 1
BOTTOM:716.0
HWL:721.57

BLOCK 6
BLOCK 9
BLOCK 8
BLOCK 10
BLOCK 11
BLOCK 15

ROAD G
ROAD I
ROAD J

TRAIL C
TRAIL A
TRAIL E

BURLINGTON NORTHERN SANTA FE RAILROAD

N

0 25 50 100
SCALE IN FEET

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TREE PRESERVATION PLAN VIEW F

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SHEET 101 of 110

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TREE PRESERVATION PLAN VIEW G

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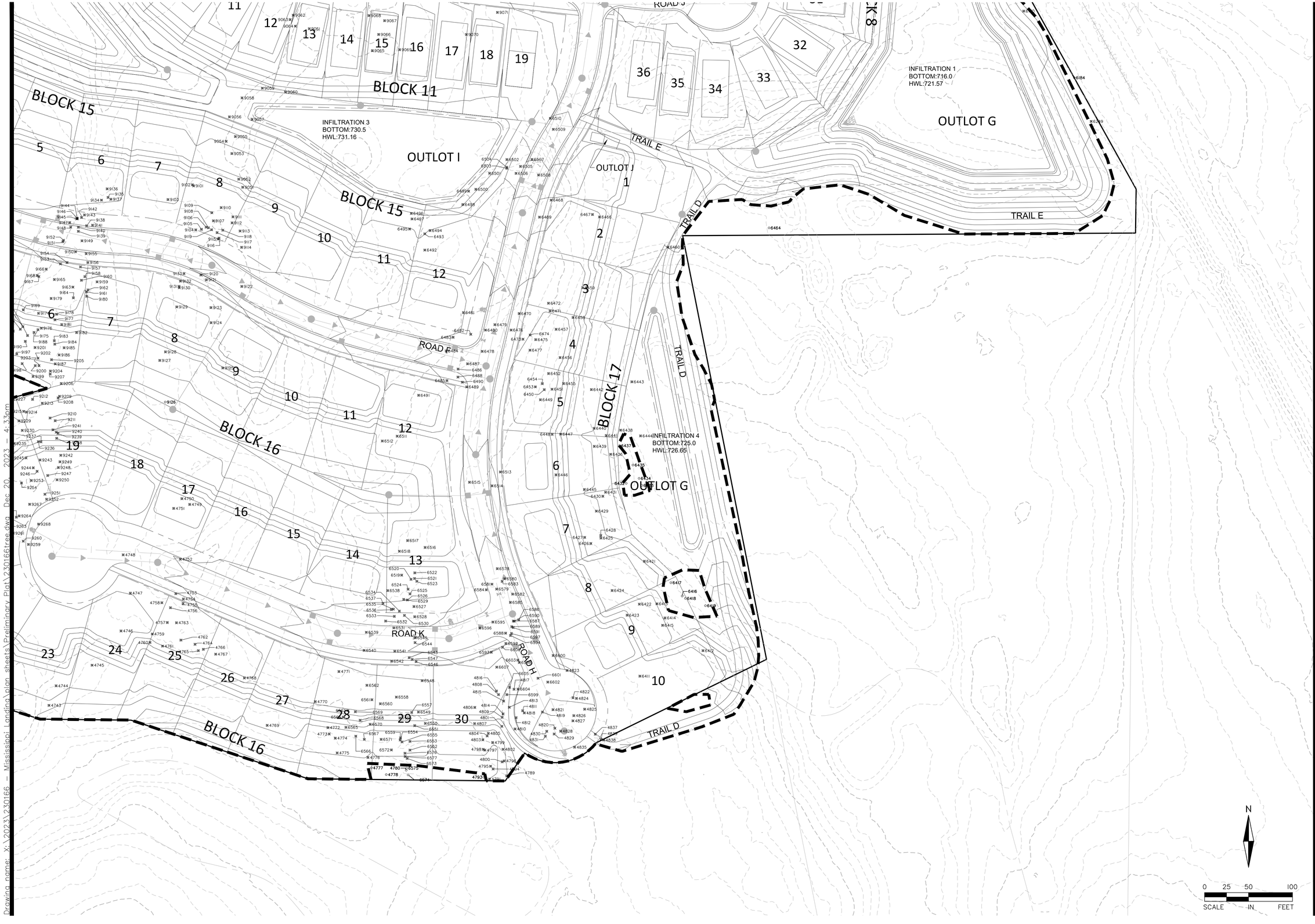
DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

102



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SCALE IN FEET

ALLIANT
733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE PRESERVATION PLAN VIEW H

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

JOHN GROMHOVD, PLA, ASLA

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	TAS
PROJECT NO:	223-0166

103

SHEET 103 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree.dwg Dec 20, 2023 - 4:33pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
4001		Boxelder	10	x
4002		Boxelder	29	x
4003		Eastern Red Cedar	12	x
4004		Eastern Red Cedar	11	x
4005		Boxelder	22	x
4006		Eastern Red Cedar	18	x
4007		Eastern Red Cedar	32	x
4008		Boxelder	15	x
4009		Boxelder	10	x
4010		Eastern Red Cedar	11	x
4011		Boxelder	10	x
4012		Boxelder	10	x
4013		Boxelder	20	x
4014		Boxelder	10	x
4015		Silver Maple	25	x
4016		Eastern Red Cedar	9	x
4017		Eastern Red Cedar	14	x
4018		Boxelder	8	x
4019		Boxelder	8	x
4020		Boxelder	16	x
4021		Siberian Elm	7	x
4022		Boxelder	8	x
4023		Eastern Red Cedar	5	x
4024		Eastern Red Cedar	4	x
4025		Eastern Red Cedar	20	x
4026		Boxelder	19	x
4027		American Elm	7	x
4028	bd 10% dead	American Elm	6	x
4029		Jack Pine	14	x
4030		American Elm	6	x
4031		Jack Pine	14	x
4032		Jack Pine	13	x
4033		American Elm	8	x
4034		Eastern Red Cedar	18	x
4035		Fruit Tree	7	x
4036		Jack Pine	22	x
4037		Jack Pine	20	x
4038		Jack Pine	9	x
4039		Red (Norway) Pine	5	x
4040		Red (Norway) Pine	5	x
4041		Red Oak	19	x
4042		Red Oak	26	x
4043		Red Oak	16	x
4044		Jack Pine	11	x
4045		Red (Norway) Pine	8	x
4046		Red (Norway) Pine	7	x
4047		Jack Pine	13	x
4048		Eastern Red Cedar	14	x
4049		Red Oak	16	x
4050		Jack Pine	11	x
4051		Jack Pine	14	x
4052		Jack Pine	10	x
4053		Jack Pine	12	x
4054		Red Oak	14	x
4055		Red Oak	12	x
4056		Jack Pine	13	x
4057		Jack Pine	14	x
4058		Black Cherry	14	x
4059		Jack Pine	15	x
4060		Mt. Ash	10	x
4061		Black Cherry	9	x
4062		Jack Pine	4	x
4063		Jack Pine	5	x
4064		Red Oak	15	x
4065		Cottonwood	14	x
4066		Cottonwood	10	x
4067		Eastern Red Cedar	8	x
4068		Cottonwood	26	x
4069		Boxelder	11	x
4070		Jack Pine	5	x
4071		Jack Pine	5	x
4072		Jack Pine	6	x
4073		Boxelder	8	x
4074		Boxelder	8	x
4075		Boxelder	10	x
4076		Jack Pine	15	x
4077		Jack Pine	11	x
4078		Jack Pine	11	x
4079		Eastern Red Cedar	23	x
4080		Eastern Red Cedar	8	x
4081		Eastern Red Cedar	21	x
4082		Red Oak	24	x
4083		Red (Norway) Pine	10	x
4084		Red (Norway) Pine	10	x
4085		Red (Norway) Pine	11	x
4086	10% dead	Jack Pine	26	x
4087		Red Oak	6	x
4088		Black Cherry	9	x
4089		Red Oak	18	x
4090		Red Oak	16	x
4091		Red Oak	12	x
4092		Red Oak	12	x
4093		Red Oak	9	x
4094		Jack Pine	12	x
4095		Jack Pine	10	x
4096		Eastern Red Cedar	14	x
4097		Jack Pine	12	x
4098		Eastern Red Cedar	10	x
4099		Jack Pine	14	x
4100		Jack Pine	13	x
4101		Jack Pine	12	x
4102		Black Cherry	6	x
4103		Eastern Red Cedar	17	x
4104		Green and White Ash	8	x
4105		Green and White Ash	7	x
4106		Red Oak	6	x
4107		Green and White Ash	6	x
4108		Green and White Ash	6	x
4109		Boxelder	8	x
4110		Eastern Red Cedar	4	x
4111		Eastern Red Cedar	4	x
4112		Red Oak	6	x
4113		Black Cherry	7	x
4114		Eastern Red Cedar	11	x
4115		Red Oak	11	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
4116		Red Oak	15	x
4117		Black Cherry	6	x
4118		Black Cherry	10	x
4119		Red Oak	6	x
4120		Red Oak	12	x
4121		Jack Pine	15	x
4122		Jack Pine	28	x
4123		Jack Pine	9	x
4124		Jack Pine	13	x
4125		Siberian Elm	8	x
4126		Eastern Red Cedar	4	x
4127		Jack Pine	20	x
4128		Eastern Red Cedar	12	x
4129		Eastern Red Cedar	12	x
4130		Jack Pine	4	x
4131		Jack Pine	15	x
4132		Eastern Red Cedar	22	x
4133		Jack Pine	14	x
4134		Jack Pine	12	x
4135		Jack Pine	14	x
4136		Red Oak	13	x
4137		Jack Pine	12	x
4138		Red Oak	16	x
4139		Jack Pine	8	x
4140		Jack Pine	13	x
4141		Jack Pine	13	x
4142		Jack Pine	7	x
4143		American Elm	8	x
4144		Eastern Red Cedar	17	x
4145		Jack Pine	21	x
4146		Jack Pine	7	x
4147		Jack Pine	11	x
4148		Jack Pine	27	x
4149		Eastern Red Cedar	9	x
4150		American Elm	7	x
4151		American Elm	6	x
4152		Eastern Red Cedar	33	x
4153		Siberian Elm	6	x
4154		Red Oak	12	x
4155		Red Oak	10	x
4156		Red Oak	16	x
4157		Red Oak	14	x
4158		Jack Pine	15	x
4159		Siberian Elm	6	x
4160		Eastern Red Cedar	28	x
4161		Eastern Red Cedar	7	x
4162		Eastern Red Cedar	14	x
4163		Siberian Elm	34	x
4164		Eastern Red Cedar	15	x
4165		Eastern Red Cedar	14	x
4166		Jack Pine	6	x
4167		Jack Pine	8	x
4168		Eastern Red Cedar	13	x
4169		Eastern Red Cedar	20	x
4170		Eastern Red Cedar	16	x
4171		Eastern Red Cedar	21	x
4172		Eastern Red Cedar	11	x
4173		Eastern Red Cedar	9	x
4174		Siberian Elm	8	x
4175		Eastern Red Cedar	5	x
4176		Eastern Red Cedar	19	x
4177		Eastern Red Cedar	11	x
4178		Eastern Red Cedar	17	x
4179		Siberian Elm	48	x
4180		Eastern Red Cedar	5	x
4181		Eastern Red Cedar	6	x
4182		Cottonwood	21	x
4183		Eastern Red Cedar	4	x
4184		Eastern Red Cedar	4	x
4185		Eastern Red Cedar	6	x
4186		Eastern Red Cedar	4	x
4187		Siberian Elm	11	x
4188		Siberian Elm	15	x
4189		Eastern Red Cedar	22	x
4190		Eastern Red Cedar	11	x
4191		Eastern Red Cedar	8	x
4192		Eastern Red Cedar	6	x
4193		Eastern Red Cedar	4	x
4194		Eastern Red Cedar	5	x
4195		Eastern Red Cedar	7	x
4196		Eastern Red Cedar	6	x
4197		Eastern Red Cedar	4	x
4198		Eastern Red Cedar	10	x
4199		Eastern Red Cedar	10	x
4200		Boxelder	10	x
4201		Eastern Red Cedar	8	x
4202		Eastern Red Cedar	8	x
4203		Eastern Red Cedar	11	x
4204		Eastern Red Cedar	16	x
4205		Eastern Red Cedar	4	x
4206		Siberian Elm	14	x
4207		Eastern Red Cedar	5	x
4208		Boxelder	17	x
4209		Boxelder	18	x
4210		Eastern Red Cedar	5	x
4211		Eastern Red Cedar	5	x
4212		Boxelder	19	x
4213		Boxelder	16	x
4214		Boxelder	23	x
4215		Eastern Red Cedar	4	x
4216		Eastern Red Cedar	7	x
4217		Eastern Red Cedar	6	x
4218		Siberian Elm	17	x
4219		Boxelder	8	x
4220		Eastern Red Cedar	8	x
4221		Siberian Elm	12	x
4222		Eastern Red Cedar	6	x
4223		Boxelder	9	x
4224		Eastern Red Cedar	6	x
4225		Eastern Red Cedar	4	x
4226		Eastern Red Cedar	6	x
4227		Eastern Red Cedar	4	x
4228		Eastern Red Cedar	6	x
4229		Eastern Red Cedar	4	x
4230		Siberian Elm	12	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
4231		Eastern Red Cedar	16	x
4232		Eastern Red Cedar	16	x
4233		Boxelder	17	x
4234		Boxelder	9	x
4235		Siberian Elm	8	x
4236		Eastern Red Cedar	11	x
4237		Boxelder	9	x
4238		Boxelder	13	x
4239		Eastern Red Cedar	5	x
4240		Eastern Red Cedar	6	x
4241		Eastern Red Cedar	9	x
4242		Eastern Red Cedar	4	x
4243		Eastern Red Cedar	11	x
4244		Eastern Red Cedar	8	x
4245		Eastern Red Cedar	12	x
4246		Eastern Red Cedar	10	x
4247		Eastern Red Cedar	12	x
4248		Eastern Red Cedar	19	x
4249		Boxelder	10	x
4250		Green and White Ash	6	x
4251		Boxelder	8	x
4252		Eastern Red Cedar	25	x
4253		Cottonwood	12	x
4254		Eastern Red Cedar	11	x
4255		Cottonwood	10	x
4256		Cottonwood	10	x
4257		Cottonwood	9	x
4258		Cottonwood	9	x
4259		Cottonwood	15	x
4260		Cottonwood	19	x
4261		Catalpa	11	x
4262		Boxelder	10	x
4263		Eastern Red Cedar	5	x
4264		Eastern Red Cedar	52	x
4265		Eastern Red Cedar	10	x
4266		Boxelder	8	x
4267		Boxelder	11	x
4268		Eastern Red Cedar	22	x
4269		Eastern Red Cedar	22	x
4270		Eastern Red Cedar	12	x
4271		Eastern Red Cedar	32	x
4272		Eastern Red Cedar	20	x
4273		Cottonwood	30	x
4274		Cottonwood	16	x
4275		Cottonwood	14	x
4276		Cottonwood	8	x
4277		Black Willow	26	x
4278		Eastern Red Cedar	18	x
4279		Eastern Red Cedar	40	x
4280		Eastern Red Cedar	4	x
4281		Cottonwood	14	x
4282		Black Willow	10	x
4283		Eastern Red Cedar	14	x
4284		Eastern Red Cedar	20	x
4285		Eastern Red Cedar	12	x
4286		Eastern Red Cedar	20	x
4287		Eastern Red Cedar	9	x
4288		Cottonwood	15	x
4289		Cottonwood	13	x
4290		Siberian Elm	6	x
4291		Eastern Red Cedar	7	x
4292		Eastern Red Cedar	12	x
4293		Siberian Elm	6	x
4294		Eastern Red Cedar	14	x
4295		Eastern Red Cedar	6	x
4296		Eastern Red Cedar	10	x
4297		Eastern Red Cedar	11	x
4298		Eastern Red Cedar	13	x
4299		Eastern Red Cedar	44	x
4300		Eastern Red Cedar	17	x
4301		Eastern Red Cedar	21	x
4302		Eastern Red Cedar	17	x
4303		Eastern Red Cedar	12	x
4304		Eastern Red Cedar	23	x
4305		Eastern Red Cedar	13	x
4306		Eastern Red Cedar	12	x
4307		Eastern Red Cedar	13	x
4308		Eastern Red Cedar	27	x
4309		Eastern Red Cedar	15	x
4310		Eastern Red Cedar	12	x
4311		Eastern Red Cedar	10	x
4312		Eastern Red Cedar	12	x
4313		Eastern Red Cedar	8	x
4314		Eastern Red Cedar	13	x
4315		Eastern Red Cedar	12	x
4316		Eastern Red Cedar	10	x
4317		Eastern Red Cedar	32	x
4318		Eastern Red Cedar	11	x
4319		Eastern Red Cedar	7	x
4320		Eastern Red Cedar	7	x
4321		Eastern Red Cedar	15	x
4322		Eastern Red Cedar	6	x
4323		Eastern Red Cedar	10	x
4324		Eastern Red Cedar	14	x
4325		Eastern Red Cedar	9	x
4326		Eastern Red Cedar	7	x
4327		Eastern Red Cedar	19	x
4328		Eastern Red Cedar	4	x
4329		Eastern Red Cedar	10	x
4330		Eastern Red Cedar	12	x
4331		Eastern Red Cedar	5	x
4332		Jack Pine	8	x
4333		Jack Pine	8	x
4334		Jack Pine	6	x
4335		Eastern Red Cedar	14	x
4336		Eastern Red Cedar	4	x
4337		Eastern Red Cedar	12	x
4338		Eastern Red Cedar	6	x
4339		Jack Pine	10	x
4340		Eastern Red Cedar	7	x
4341		Silver Maple	20	x
4342		Eastern Red Cedar	7	x
4343		Eastern Red Cedar	8	x
4344		Jack Pine	9	x
4345		Eastern Red Cedar	6	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
4346		Boxelder	19	x
4347		Jack Pine	8	x
4348		Eastern Red Cedar	9	x
4349		Siberian Elm	13	x
4350		Jack Pine	7	x
4351		Jack Pine	12	x
4352		Jack Pine	12	x
4353		Jack Pine	12	x
4354		Jack Pine	14	x
4355		Green and White Ash	6	x
4356		Jack Pine	12	x
4357		Catalpa	14	x
4358		Jack Pine	12	x
4359		Jack Pine	13	x
4360		Eastern Red Cedar	18	x
4361		Jack Pine	7	x
4362		Boxelder	9	x
4363		Boxelder	25	x
4364		Eastern Red Cedar	6	x
4365		Eastern Red Cedar	7	x
4366		Siberian Elm	7	x
4367		Siberian Elm	6	
4368		Fruit Tree	14	
4370		Red Oak	24	
4371		Hackberry	25	x
4372		Boxelder	10	x
4373		Eastern Red Cedar	17	x
4374		Eastern Red Cedar	19	x
4375		Eastern Red Cedar	4	x
4376		Red Oak	14	x
4377		American Elm	26	x
4378		Eastern Red Cedar	13	x
4379		Eastern Red Cedar	20	x
4380		Eastern Red Cedar	12	x
4381		Eastern Red Cedar	15	x
4382		Eastern Red Cedar	16	x
4383		Eastern Red Cedar	21	x
4384		Boxelder	22	
4385		Boxelder	15	
4386		Green and White Ash	8	
4387		Hackberry	6	
4388		Boxelder	15	
4389		Bur Oak	7	
4390		Green and White Ash	7	
4391		Bur Oak	22	
4392		American Elm	10	
4393		Green and White Ash	8	x
4394		Green and White Ash	9	x
4395		Green and White Ash	7	x
4396		Boxelder	16	x
4397		Siberian Elm	22	x
4398		American Elm	6	x
4399		Hackberry	7	x
4400		Bur Oak	34	x
4401		American Elm	7	x
4402		Ironwood	8	x
4403		Bur Oak	27	
4404		Bur Oak	20	x
4405		Bur Oak	26	
4406		American Elm	7	x
4407		Black Cherry	6	
4408		Bur Oak	29	
4409		Red Oak	20	x
4410		Red Oak	21	x
4411		Red Oak	24	
4412		Boxelder	8	
4413		Boxelder	9	x
4414		Boxelder	8	x
4415		Boxelder	9	x
4416		Boxelder	10	x
4417		Boxelder	11	x
4418		Green and White Ash	12	x
4419		Hackberry	6	x
4420		American Elm	11	x
4421		American Elm	10	x
4422		Green and White Ash	7	x
4423		Red Oak	15	
4424		Eastern Red Cedar	9	x
4425		Paper, Yellow, and River Birch	10	x
4426		Red Oak	24	x
4427		Bur Oak	31	x
4428		Paper, Yellow, and River Birch	6	x
4429		Bur Oak	34	x
4430		Green and White Ash	11	x
4431		Bur Oak	26	x
4432		Green and White Ash	16	x
4433		American Elm	7	x
4434		Boxelder	10	x
4435		Green and White Ash	12	x
4436		American Elm	9	x
4437		Green and White Ash	6	x
4438		American Elm	22	x
4439		Black Walnut	7	x
4440		Black Walnut	6	x
4441		Siberian Elm	8	x
4442		Boxelder	35	
4443		Hackberry	10	
4444		American Elm	9	x
4445		Boxelder	21	x
4446		Boxelder	16	
4447		American Elm	7	
4448		Boxelder	9	x
4449		Boxelder	13	x
4450		Bur Oak	32	
4451		Green and White Ash	12	
4452		Hackberry	9	
4453		Hackberry	7	
4454		Boxelder	22	
4455		American Elm	7	x
4456		Hackberry	6	x
4457		Amur Maple	38	x
4458		Black Cherry	12	x
4459		Black Walnut	8	x
4460		Black Walnut	8	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
4461		American Elm	45	x
4462		Boxelder	11	
4463		American Elm	28	
4464		Boxelder	14	
4465		Cottonwood	57	x
4466		Boxelder	11	x
4467		Boxelder	16	x
4468		Boxelder	18	x
4469		Silver Maple	13	x
4470		Green and White Ash	6	x
4471		Eastern Red Cedar	12	x
4472		Eastern Red Cedar	13	x
4473		Bur Oak	34	
4474		Arborvitae	37	
4475		Black Walnut	8	
4476		Arborvitae	7	
4477		Bur Oak	32	
4478		Silver Maple	36	x
4479		Eastern Red Cedar	15	
4480		Red (Norway) Pine	9	
4481		Eastern Red Cedar	9	
4482		Eastern Red Cedar	14	x
4483		Eastern Red Cedar	14	
4484		Eastern Red Cedar	13	
4485		Eastern Red Cedar	10	
4486		Eastern Red Cedar	14	
4487		Eastern Red Cedar	22	
4488		Eastern Red Cedar	19	
4489		Red (Norway) Pine	11	
4490		Red (Norway) Pine	16	
4491		Silver Maple	30	
4492		Green and White Ash	8	x
4493		Black Walnut	14	x
4494		Colorado Spruce	14	
4495		Black Walnut	15	
4496		Green and White Ash	18	
4497		Bur Oak	11	
4498		Red Oak	18	
4499		Black Walnut	19	
4500		Black Walnut	11	
4501		Black Walnut	12	
4502		American Elm	30	
4503		American Elm	8	
4504		American Elm	7	
4505		Colorado Spruce	8	x
4506		Colorado Spruce	13	x
4507		Colorado Spruce	12	x
4508		Colorado Spruce	7	x
4509		Colorado Spruce	14	x
4510		Silver Maple	42	x
4511		Black Walnut	9	x
4512		Black Walnut	9	x
4513		Hackberry	6	x
4514	bd 10% dead	Black Willow	48	x
4515		Black Walnut	9	x
4516		Red (Norway) Pine	11	x
4517		Red (Norway) Pine	6	x
4518		Red (Norway) Pine	7	x
4519		Red (Norway) Pine	10	x
4520		Colorado Spruce	7	x
4521		Colorado Spruce	6	x
4522		Eastern Red Cedar	8	x
4523		Green and White Ash	20	x
4524		Red (Norway) Pine	14	x
4525		Boxelder	11	x
4526		Black Willow	22	x
4527		Boxelder	20	x
4528		Bur Oak	32	x
4529		Norway Spruce	10	x
4530		Eastern Red Cedar	10	x
4531		Eastern Red Cedar	10	x
4532		Black Walnut	6	
4533		Boxelder	8	
4534		Green and White Ash	7	
4535		American Elm	13	
4536		Eastern Red Cedar	10	
4537		Red (Norway) Pine	11	
4538		Jack Pine	13	
4539		Red (Norway) Pine	9	
4540		Jack Pine	8	
4541		Jack Pine	10	
4542		Red (Norway) Pine	12	
4543		Red (Norway) Pine	8	
4544		Jack Pine	9	
4545		Jack Pine	11	x
4546		Jack Pine	11	x
4547		Jack Pine	14	x
4548		Green and White Ash	7	x
4549		Green and White Ash	7	x
4550		Green and White Ash	9	x
4551		Green and White Ash	6	x
4552		Green and White Ash	10	x
4553		Red (Norway) Pine	11	x
4554		Jack Pine	16	x
4555		Red (Norway) Pine	12	x
4556		Red (Norway) Pine	12	x
4557		Eastern Red Cedar	7	x
4558		Norway Spruce	9	x
4559		Norway Spruce	6	x
4560		Mulberry	6	x
4561		Mulberry	7	x
4562		Black Walnut	10	
4563		Black Walnut	10	x
4564		Eastern Red Cedar	16	
4565		Eastern Red Cedar	8	x
4566		Eastern Red Cedar	9	
4567		Eastern Red Cedar	8	
4568		Jack Pine	12	
4569		Jack Pine	12	
4570		Green and White Ash	10	
4571		Green and White Ash	7	
4572		Green and White Ash	8	
4573		Jack Pine	13	
4574		Jack Pine	9	
4575		Jack Pine	14	
4576		Green and White Ash	7	

ALLIANT

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

JOHN GRONHOVD, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

104

SHEET 104 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:33pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
4577		Jack Pine	12	
4578		Red (Norway) Pine	16	x
4579		Red (Norway) Pine	14	
4580		Red (Norway) Pine	14	
4581		Boxelder	15	x
4582		Jack Pine	10	
4583		Jack Pine	13	
4584		Jack Pine	15	
4585		Red (Norway) Pine	16	
4586		Red (Norway) Pine	13	
4587		Black Walnut	6	
4588		Black Walnut	9	
4589		Sugar Maple	12	
4590		Black Walnut	6	
4591		Black Walnut	11	
4592		Boxelder	8	
4593		Boxelder	10	
4594		Black Walnut	6	x
4595		Black Walnut	17	x
4596		Boxelder	24	x
4597		Arborvitae	11	x
4598		Arborvitae	12	x
4599		Black Walnut	8	x
4677		Bur Oak	23	
4678		Bur Oak	20	x
4738		Red Oak	20	
4743		Red Oak	22	x
4744		Bittemut Hickory	20	x
4745		Red Oak	25	x
4746		Bur Oak	20	x
4747		Red Oak	6	x
4748		Eastern Red Cedar	19	x
4749		Eastern Red Cedar	18	x
4750		Eastern Red Cedar	9	x
4751		Eastern Red Cedar	10	x
4752		Jack Pine	9	x
4753		Red Oak	17	x
4754		Bur Oak	7	x
4755		Bur Oak	9	x
4756		Red Oak	16	x
4757		Bur Oak	11	x
4758		Bur Oak	8	x
4759		Fruit Tree	9	x
4760		Bittemut Hickory	13	x
4761		Bur Oak	18	x
4762		Bur Oak	15	x
4763		Cottonwood	50	x
4764		Bittemut Hickory	14	x
4765		Bur Oak	13	x
4766		Bur Oak	12	x
4767		Bittemut Hickory	12	x
4768		Bur Oak	22	x
4769		Hackberry	20	x
4770		Hackberry	24	x
4771		Bur Oak	18	x
4772		Bittemut Hickory	13	x
4773		Bittemut Hickory	15	x
4774		American Elm	20	x
4775		Bittemut Hickory	10	x
4776		Fruit Tree	6	x
4777		Bittemut Hickory	13	
4778		Bittemut Hickory	11	
4780		Bittemut Hickory	17	
4789		Bittemut Hickory	6	x
4791		Hackberry	12	x
4793		Hackberry	6	
4794		Bittemut Hickory	16	x
4795		Hackberry	6	x
4796		Bittemut Hickory	8	x
4797		Hackberry	8	x
4798		Hackberry	12	x
4799		Bittemut Hickory	12	x
4800		Bittemut Hickory	7	x
4801		Bittemut Hickory	12	x
4802		Bittemut Hickory	6	x
4803		Bittemut Hickory	7	x
4804		Hackberry	6	x
4805		Hackberry	8	x
4806		Hackberry	14	x
4807		Bittemut Hickory	18	x
4808		Hackberry	10	x
4809		Bittemut Hickory	10	x
4810		Hackberry	14	x
4811		Bittemut Hickory	6	x
4812		Hackberry	11	x
4813		American Elm	9	x
4814		Hackberry	6	x
4815		Hackberry	6	x
4816		Bittemut Hickory	8	x
4817		American Elm	6	x
4818		Hackberry	7	x
4819		Green and White Ash	70	x
4820		Hackberry	6	x
4821		Boxelder	12	x
4822		Bittemut Hickory	10	x
4823		Bittemut Hickory	13	x
4824		Bittemut Hickory	6	x
4825		Bittemut Hickory	9	x
4826		Hackberry	6	x
4827		Red Oak	17	x
4828		Hackberry	13	x
4829		Hackberry	15	x
4830		Bittemut Hickory	13	x
4831		Green and White Ash	6	x
4835		Hackberry	8	x
4837		Red Oak	7	x
4838		Hackberry	12	x
4839		Bittemut Hickory	9	x
5001		Green and White Ash	14	x
5002		Boxelder	16	
5003		Sugar Maple	12	x
5004		Green and White Ash	7	x
5005		Green and White Ash	6	x
5006		Red Oak	11	
5007		Green and White Ash	7	
5008		Black Cherry	17	

Tag ID	Notes	Species	SIZE (DBH)	Remove
5009		Green and White Ash	9	
5010		Bur Oak	28	
5011		Boxelder	10	
5012		Green and White Ash	6	
5013		Bur Oak	9	
5014		Green and White Ash	10	
5015		Green and White Ash	8	
5016		Hackberry	7	
5017		Hackberry	6	
5018		Bur Oak	22	
5020		Amur Maple	24	x
5021		Colorado Spruce	6	x
5023		Green and White Ash	6	x
5024		Bur Oak	24	
5025		Hackberry	14	
5027		Black Cherry	7	
5028	Don't locate. Bd	Bur Oak	20	
5029		Black Cherry	11	
5030		Boxelder	31	
5032		Boxelder	8	
5033		Bur Oak	13	
5035		Green and White Ash	11	
5036	Don't locate, bd	Eastern Red Cedar	14	
5037	Don't locate	Green and White Ash	6	
5038		Boxelder	7	
5039		Bur Oak	8	
5040		Bur Oak	6	
5041		Boxelder	25	
5042		Green and White Ash	12	
5043		Hackberry	7	x
5044		Green and White Ash	10	
5045		Green and White Ash	7	
5046		Green and White Ash	10	
5047		Bur Oak	38	
5049		American Elm	6	
5050		Green and White Ash	6	
5051		Green and White Ash	10	
5052		Green and White Ash	7	
5053		Bur Oak	22	
5057		Bur Oak	16	
5058		Green and White Ash	19	
5059		Green and White Ash	7	
5060		Green and White Ash	16	
5061		Green and White Ash	18	
5062		Green and White Ash	6	
5063		Green and White Ash	10	
5064		Red Oak	25	
5065		Boxelder	16	
5066		Boxelder	13	
5067		Green and White Ash	10	
5068		Black Willow	10	
5069		Green and White Ash	12	
5071		Green and White Ash	11	
5072		Hackberry	14	
5076		Bur Oak	21	
5077		Green and White Ash	11	
5078		Boxelder	24	
5079		Green and White Ash	7	
5080		Green and White Ash	21	
5081		Hackberry	15	
5082		Hackberry	6	
5083	Don't locate	Green and White Ash	13	
5084		Green and White Ash	11	
5085		Green and White Ash	7	
5086		Red Oak	19	
5087		Green and White Ash	13	
5088		Green and White Ash	7	
5089		Green and White Ash	11	
5090		Green and White Ash	11	
5091		Boxelder	8	
5092		Green and White Ash	12	
5093		Slippery Elm	12	
5094		Green and White Ash	10	
5095		Green and White Ash	10	
5096		Green and White Ash	6	
5097		Green and White Ash	6	
5098		Green and White Ash	12	
5099		Boxelder	8	
5100		Boxelder	16	
5101		Green and White Ash	6	x
5102		Boxelder	9	x
5103		Green and White Ash	15	x
5104		Slippery Elm	9	x
5105		Boxelder	8	x
5106		Boxelder	19	x
5107		Green and White Ash	13	
5108		Boxelder	9	
5109		Green and White Ash	11	
5110		Green and White Ash	6	
5111		Green and White Ash	12	
5112		Ironwood	6	
5116		Red Oak	8	
5117		Black Cherry	12	
5118		Mulberry	7	
5119		Green and White Ash	13	
5120		Green and White Ash	11	
5121		Slippery Elm	11	
5122		Green and White Ash	7	
5123		Slippery Elm	7	
5124		Green and White Ash	6	
5125		Green and White Ash	7	
5127		Slippery Elm	9	
5128	bd 15% dead	Hackberry	28	
5129		Hackberry	19	
5130		Red Oak	25	
5131		Bur Oak	7	
5132		Red Oak	20	
5133		Bur Oak	6	
5134		Colorado Spruce	4	
5135		Colorado Spruce	5	
5136		Colorado Spruce	4	
5137		Colorado Spruce	4	
5139		Red Oak	11	x
5140		Bittemut Hickory	8	x
5141		Pin Oak	19	
5142		Red Oak	12	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
5143		Boxelder	22	x
5144		Green and White Ash	6	x
5145		Boxelder	8	x
5150		Boxelder	17	
5151		Boxelder	6	
5152		Green and White Ash	13	x
5153		Green and White Ash	12	x
5155		Green and White Ash	14	
5156		Boxelder	14	
5157		American Elm	11	
5158		Green and White Ash	6	x
5160		Slippery Elm	6	x
5161		Bur Oak	49	x
5162		Hackberry	7	x
5163		Black Cherry	12	x
5164		Boxelder	18	x
5165		Boxelder	8	x
5166		Boxelder	26	x
5167		Boxelder	16	x
5168		Red Oak	8	x
5169		Red Oak	14	x
5170		Boxelder	18	x
5171		Hackberry	14	x
5172		Hackberry	8	x
5173	bd 15% dead bra	Bur Oak	24	x
5174		Red Oak	6	
5179		Boxelder	20	x
5180		Hackberry	19	x
5181		Black Cherry	10	x
5182		Hackberry	10	x
5183		Bur Oak	27	x
5184		Boxelder	14	x
5185		Boxelder	11	x
5186		Boxelder	17	
5187		Boxelder	13	
5188		Black Cherry	12	x
5189		Black Cherry	8	x
5190		Eastern Red Cedar	4	x
5191		Green and White Ash	16	x
5192		Boxelder	14	x
5193		Hackberry	17	x
5194		Hackberry	7	x
5195		Slippery Elm	7	x
5196		Black Cherry	10	
5197		Red Oak	12	
5198		Bitternut Hickory	20	
5199		Slippery Elm	7	
5200		Hackberry	14	
5201		Boxelder	18	
5202		Black Cherry	15	
5203		Hackberry	6	
5204		Black Cherry	7	
5214		Boxelder	16	
5215		Black Cherry	10	
5216		Black Cherry	12	
5217		Red Oak	8	
5218		Boxelder	9	
5219		Bur Oak	22	
5220		Boxelder	8	x
5221		Hackberry	10	
5222		Hackberry	10	
5223		Boxelder	16	
5224		Boxelder	8	
5228		Hackberry	6	
5229		Hackberry	14	
5230		Boxelder	8	
5233		Boxelder	16	x
5234		Black Cherry	9	x
5235		Siberian Elm	6	x
5236		Boxelder	29	x
5237		Boxelder	11	x
5239		Boxelder	10	
5240	Don't locate, bd	Eastern Red Cedar	4	
5241		Boxelder	12	
5242		Boxelder	8	
5245		Boxelder	18	
5247		Hackberry	16	x
5248		Boxelder	18	x
5249		Hackberry	23	x
5250		Hackberry	13	x
5251		Boxelder	13	x
5252		Boxelder	20	x
5253		Hackberry	21	x
5254		Black Cherry	19	x
5255		Black Cherry	16	x
5256		Red Oak	38	x
5257		Hackberry	21	x
5258		Eastern Red Cedar	16	x
5259		Eastern Red Cedar	18	x
5260		Eastern Red Cedar	10	x
5261		Eastern Red Cedar	20	x
5262		Eastern Red Cedar	14	x
5263		Eastern Red Cedar	21	x
5264		Siberian Elm	12	x
5265		Eastern Red Cedar	8	x
5266		Eastern Red Cedar	7	x
5267		Eastern Red Cedar	35	x
5268		Eastern Red Cedar	20	x
5269		Eastern Red Cedar	10	x
5270		Siberian Elm	21	x
5271		Red Oak	40	x
5272		Green and White Ash	17	x
5273		Eastern Red Cedar	7	x
5274		Eastern Red Cedar	15	x
5275		Eastern Red Cedar	8	x
5276		Eastern Red Cedar	26	x
5277		Eastern Red Cedar	10	x
5278		Eastern Red Cedar	12	x
5279		Eastern Red Cedar	14	x
5280		Eastern Red Cedar	8	x
5281		Eastern Red Cedar	18	x
5282		Green and White Ash	53	x
5283		Eastern Red Cedar	33	x
5284		Eastern Red Cedar	9	x
5285		Eastern Red Cedar	23	x
5286		Red Oak	23	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
5287		Red Elm	10	x
5288		Bur Oak	13	x
5289		Red Oak	23	x
5290		Red Oak	16	x
5291		Red Oak	29	x
5292		Eastern Red Cedar	10	x
5293		Black Cherry	10	x
5294		Boxelder	22	x
5295		Black Cherry	14	x
5296		Boxelder	18	x
5297		Boxelder	9	x
5298	Don't locate	Boxelder	12	x
5299		Red Oak	21	x
5300		Basswood	9	x
5301		Green and White Ash	11	x
5302		Green and White Ash	7	x
5303		Eastern Red Cedar	16	x
5304		Red Oak	25	x
5305		Eastern Red Cedar	11	x
5306		Boxelder	18	x
5307		Red Oak	15	x
5308		Green and White Ash	13	x
5309		Red Elm	7	x
5310		Boxelder	34	x
5311		Hackberry	20	x
5312		Red Oak	22	x
5313		Green and White Ash	10	x
5314		Hackberry	7	x
5315		Boxelder	24	x
5316		Black Cherry	7	x
5317		Siberian Elm	9	x
5318		Black Cherry	10	x
5319		Green and White Ash	15	x
5320		Green and White Ash	13	x
5321		Black Cherry	7	x
5322		Black Cherry	14	x
5323		Bur Oak	30	
5324		Bur Oak	27	x
5325		Bur Oak	25	x
5326		American Elm	15	x
5327		American Elm	17	x
5328		Bur Oak	6	x
5329		Black Cherry	6	x
5330		Boxelder	12	x
5331		Black Cherry	9	x
5332		Black Cherry	11	x
5333		Boxelder	8	x
5334		Black Cherry	7	x
5335		Black Cherry	7	x
5336		Black Cherry	7	x
5337		Boxelder	8	x
5338		Boxelder	8	x
5339		Slippery Elm	8	x
5340		Boxelder	9	x
5341		Boxelder	8	x
5342		Boxelder	13	x
5343		American Elm	9	x
5344		Black Cherry	8	x
5345		Black Cherry	12	x
5346		Bur Oak	11	x
5347		Boxelder	13	x
5348		Green and White Ash	14	x
5349		Sugar Maple	9	x
5350		Black Cherry	6	x
5351		Black Cherry	9	x
5352		Boxelder	8	x
5353		Boxelder	12	x
5354		Black Cherry	7	x
5355		Slippery Elm	8	x
5356		Boxelder	20	x
5357		Eastern Red Cedar	12	x
5358		Eastern Red Cedar	10	x
5359		Boxelder	17	x
5360		Boxelder	11	x
5361		Boxelder	24	x
5362		Eastern Red Cedar	18	x
5363		Eastern Red Cedar	24	x
5364		Black Cherry	13	x
5365		Eastern Red Cedar	13	x
5366		Eastern Red Cedar	13	x
5367		Eastern Red Cedar	14	x
5368		Bur Oak	15	x
5369		Red Oak	22	x
5370		Red Oak	23	x
5371		Green and White Ash	12	x
5372		Boxelder	27	x
5373		Boxelder	69	x
5374		Green and White Ash	17	x
5375		Jack Pine	13	x
5376		Boxelder	42	x
5377		Boxelder	26	x
5378		Eastern Red Cedar	16	x
5379		Red Oak	24	x
5380		Red Oak	21	x
5381		Eastern Red Cedar	15	x
5382		Eastern Red Cedar	15	x
5383		Jack Pine	15	x
5384		Eastern Red Cedar	17	x
5385		Jack Pine	13	x
5386		Eastern Red Cedar	17	x
5387		Jack Pine	12	x
5388		Jack Pine	15	x
5389		Siberian Elm	42	x
5390		Eastern Red Cedar	12	x
5391		Eastern Red Cedar	14	x
5392		Jack Pine	15	x
5393		Eastern Red Cedar	23	x
5394		Jack Pine	17	x
5395		Fruit Tree	7	x
5396		Eastern Red Cedar	32	x
5397		Eastern Red Cedar	11	x
5398		Eastern Red Cedar	14	x
5399		Jack Pine	15	x
5400		Jack Pine	9	x
5401		Jack Pine	13	x
5402		Jack Pine	13	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
5403	bd 10% dead	Jack Pine	15	x
5404		Eastern Red Cedar	35	x
5405		Boxelder	20	x
5406		Eastern Red Cedar	16	x
5407		Siberian Elm	9	x
5408		Siberian Elm	14	x
5409		Siberian Elm	14	x
5410		Siberian Elm	11	x
5411		Siberian Elm	10	x
5412		Eastern Red Cedar	7	x
5413		Eastern Red Cedar	10	x
5414		Eastern Red Cedar	24	x
5415		Siberian Elm	8	x
5416		Siberian Elm	6	x
5417		Eastern Red Cedar	4	x
5418		Eastern Red Cedar	4	x
5419	Too small/don't l	Eastern Red Cedar	3	x
5420		Eastern Red Cedar	5	x
5421		Eastern Red Cedar	9	x
5422		Eastern Red Cedar	16	x
5423		Eastern Red Cedar	9	x
5424		Eastern Red Cedar	10	x
5425		Eastern Red Cedar	9	x
5426		Eastern Red Cedar	9	x
5427		Eastern Red Cedar	7	x
5428		Siberian Elm	6	x
5429		Eastern Red Cedar	9	x
5430		Eastern Red Cedar	19	x
5431		Eastern Red Cedar	14	x
5432		Eastern Red Cedar	13	x
5433		Eastern Red Cedar	15	x
5434		Eastern Red Cedar	4	x
5435	Too small/don't l	Eastern Red Cedar	3	x
5436		Eastern Red Cedar	5	x
5437		Eastern Red Cedar	9	x
5438		Eastern Red Cedar	6	x
5439		Eastern Red Cedar	12	x
5440		Eastern Red Cedar	19	x
5441		Eastern Red Cedar	18	x
5442		Eastern Red Cedar	14	x
5443		Eastern Red Cedar	14	x
5444	Too small/don't l	Eastern Red Cedar	3	x
5445		Eastern Red Cedar	10	x
5446		Siberian Elm	16	x
5447		Eastern Red Cedar	11	x
5448		Eastern Red Cedar	6	x
5449		Eastern Red Cedar	4	x
5450		Eastern Red Cedar	12	x
5451		Eastern Red Cedar	8	x
5452		Eastern Red Cedar	8	x
5453		Eastern Red Cedar	9	x
5454		Eastern Red Cedar	6	x
5455		Eastern Red Cedar	9	x
5456		Eastern Red Cedar	13	x
5457		Eastern Red Cedar	5	x
5458	Too small/don't l	Eastern Red Cedar	3	x
5459		Eastern Red Cedar	5	x
5460		Eastern Red Cedar	6	x
5461		Green and White Ash	8	x
5462		Eastern Red Cedar	6	x
5463	Too small/don't l	Eastern Red Cedar	2	x
5464	Too small/don't l	Eastern Red Cedar	2	x
5465	Too small/don't l	Eastern Red Cedar	3	x
5466	Too small/don't l	Eastern Red Cedar	3	x
5467		Eastern Red Cedar	5	x
5468		Eastern Red Cedar	28	x
5469		Boxelder	22	x
5470	Too small/don't l	Eastern Red Cedar	3	x
5471	Too small/don't l	Eastern Red Cedar	2	x
5472	Too small/don't l	Eastern Red Cedar	3	x
5473	Too small/don't l	Eastern Red Cedar	3	x
5474	Too small/don't l	Eastern Red Cedar	3	x
5475	Too small/don't l	Eastern Red Cedar	3	x
5476	Too small/don't l	Eastern Red Cedar	3	x
5477		Siberian Elm	14	x
5478		Siberian Elm	22	x
5479		Eastern Red Cedar	3	x
5480		Eastern Red Cedar	10	x
5481		Siberian Elm	12	x
5482		Eastern Red Cedar	4	x
5483		Eastern Red Cedar	5	x
5484		Green and White Ash	21	x
5485		Eastern Red Cedar	8	x
5486		Boxelder	12	x
5487		Boxelder	21	x
5488		Boxelder	12	x
5489		Siberian Elm	12	x
5490		Siberian Elm	12	x
5491		Siberian Elm	10	x
5492		Siberian Elm	8	x
5493		Siberian Elm	24	x
5494		Siberian Elm	26	x
5495		Siberian Elm	11	x
5496		Siberian Elm	8	x
5497		Siberian Elm	7	x
5498		Siberian Elm	10	x
5499		Siberian Elm	13	x
5500		Siberian Elm	6	x
5501		Siberian Elm	12	x
5502		Siberian Elm	7	x
5503		Siberian Elm	7	x
5504		Siberian Elm	13	x
5505		Siberian Elm	8	x
5506		Siberian Elm	7	x
5507		Siberian Elm	14	x
5508		Siberian Elm	7	x
5509		Siberian Elm	7	x
5510		Siberian Elm	8	x
5511		Siberian Elm	9	x
5512		Siberian Elm	7	x
5513		Siberian Elm	9	x
5514		Siberian Elm	11	x
5515		Siberian Elm	6	x
5516		Siberian Elm	11	x
5517		Siberian Elm	10	x
5518		Eastern Red Cedar	2	x

ALLIANT

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Suite 700
Minneapolis, MN 55402
612.758.3080
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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

JOHN GRONHOVD, PLA, ASLA

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
5519		Siberian Elm	6	x
5520		Siberian Elm	11	x
5521		Siberian Elm	7	x
5522		Siberian Elm	12	x
5523		Eastern Red Cedar	12	x
5524		Siberian Elm	20	x
5525		Siberian Elm	11	x
5526		Siberian Elm	14	x
5527		Siberian Elm	17	x
5528		Siberian Elm	20	x
5529		Siberian Elm	13	x
5530		Siberian Elm	13	x
5531		Eastern Red Cedar	12	x
5532		Eastern Red Cedar	13	x
5533		Siberian Elm	7	x
5534		Siberian Elm	7	x
5535		Cottonwood	12	x
5536		Eastern Red Cedar	19	x
5537		Eastern Red Cedar	29	x
5538		Siberian Elm	27	x
5539		Eastern Red Cedar	12	x
5540		Siberian Elm	15	x
5541		Siberian Elm	18	x
5542		Siberian Elm	9	x
5543		Siberian Elm	17	x
5544		Black Willow	10	x
5545		Siberian Elm	12	x
5546		Siberian Elm	12	x
5547		Eastern Red Cedar	14	x
5548		Eastern Red Cedar	15	x
5549		Eastern Red Cedar	14	x
5550		Eastern Red Cedar	14	x
5551		Eastern Red Cedar	15	x
5552		Eastern Red Cedar	16	x
5553		Eastern Red Cedar	11	x
5554		Eastern Red Cedar	14	x
5555		Eastern Red Cedar	13	x
5556		Eastern Red Cedar	17	x
5557		Eastern Red Cedar	18	x
5558		Eastern Red Cedar	13	x
5559		Green and White Ash	7	x
5560		Hackberry	7	x
5561		Hackberry	7	x
5562		Hackberry	7	x
5563		Red Oak	20	x
5564		Green and White Ash	9	x
5565		Hackberry	6	x
5566		Black Cherry	9	x
5567		Hackberry	6	x
5568		Hackberry	15	x
5569		Bur Oak	25	x
5570		Ironwood	11	x
5571		Black Cherry	7	x
5572		Hackberry	17	x
5573		Sugar Maple	15	x
5574		Bittemut Hickory	7	x
5575		Bittemut Hickory	12	x
5576		Green and White Ash	15	x
5577		Hackberry	12	x
5578		Boxelder	9	
5579		Hackberry	15	
5580		Hackberry	6	x
5581		Boxelder	16	
5582		Hackberry	7	
5583		Green and White Ash	37	
5584		Sugar Maple	6	
5585		Slippery Elm	7	
5586		Bur Oak	23	
5588		Green and White Ash	11	
5589		Sugar Maple	8	
5590		Sugar Maple	8	
5594		Bur Oak	21	
5595		Sugar Maple	17	
5596		Sugar Maple	16	
5598		Sugar Maple	7	
5599		Sugar Maple	9	
5601		Sugar Maple	9	
5603		Sugar Maple	7	
5606		Bur Oak	15	
5609		Sugar Maple	7	
5611		Siberian Elm	8	x
5612		Siberian Elm	8	x
5613		Siberian Elm	6	x
5614		Black Cherry	7	x
5615		Green and White Ash	7	x
5616		Green and White Ash	7	x
5617		Boxelder	22	x
5618		Boxelder	9	x
5619		Slippery Elm	7	x
5620		Green and White Ash	14	x
5621		Bittemut Hickory	8	x
5622		Eastern Red Cedar	9	x
5623		Eastern Red Cedar	7	x
5624		Slippery Elm	15	x
5625		Green and White Ash	11	x
5626		Green and White Ash	10	x
5627		Black Cherry	7	x
5628		Red Oak	13	x
5629		Green and White Ash	27	x
5630		Green and White Ash	28	x
5631		Bur Oak	42	x
5632		Eastern Red Cedar	11	x
5633		Ironwood	19	x
5634		Hackberry	14	x
5635		Hackberry	13	x
5636		Boxelder	11	
5637		Green and White Ash	46	
5638		Green and White Ash	12	
5639		Green and White Ash	9	
5640	10% dead	Red Oak	30	
5641		Red Oak	35	
5642		Boxelder	23	
5643		Boxelder	15	
5644		Boxelder	11	x
5645		Boxelder	15	x
5646		Boxelder	26	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
5647		Black Cherry	16	x
5648		American Elm	16	x
5649		Eastern Red Cedar	13	x
5650		Red Oak	18	x
5651		Red Oak	19	x
5652		Black Cherry	6	x
5653		Bitternut Hickory	6	x
5654		Red Oak	11	x
5655		Black Cherry	11	x
5656		Red Oak	22	x
5657		Red Oak	9	x
5658		Red Oak	7	x
5659		Fruit Tree	7	x
5660		American Elm	7	x
5661		Green and White Ash	10	x
5662		Black Cherry	20	x
5663		Green and White Ash	11	x
5664		American Elm	7	x
5665		Boxelder	46	x
5666		Boxelder	9	x
5667		Green and White Ash	23	x
5668		Boxelder	8	x
5669		Black Locust	11	x
5670		Black Locust	6	x
5671		Black Locust	6	x
5672		Black Locust	7	x
5673		Black Locust	22	x
5674		Bur Oak	10	x
5675		Black Cherry	7	x
5676		American Elm	28	x
5677		Boxelder	46	x
5678		Green and White Ash	12	x
5679		Siberian Elm	12	x
5680		Bur Oak	20	x
5681		Slippery Elm	7	x
5682		Green and White Ash	7	x
5683		Black Cherry	24	x
5684		Bur Oak	9	x
5685		Bur Oak	7	x
5686		Bur Oak	20	x
5687	bd 10% dead	American Elm	6	x
5688		Fruit Tree	12	x
5689		Bittemut Hickory	7	x
5690		Black Cherry	11	x
5691		Green and White Ash	14	x
5692		Bitternut Hickory	9	x
5693		Hackberry	21	x
5694		Bur Oak	6	x
5695		Boxelder	8	x
5696		Green and White Ash	8	x
5697		Green and White Ash	8	x
5698		Green and White Ash	8	x
5699		Slippery Elm	7	x
5700		Boxelder	8	x
5701		Boxelder	9	x
5702		Black Cherry	9	x
5703		Slippery Elm	7	x
5704		Green and White Ash	12	x
5705		Boxelder	36	x
5706		Boxelder	29	x
5707		Black Cherry	11	x
5708		Boxelder	11	x
5709		Bittemut Hickory	8	x
5710		Green and White Ash	15	x
5711		Bur Oak	33	x
5712		Boxelder	9	x
5713		Green and White Ash	9	x
5714		Black Cherry	8	x
5715		Green and White Ash	11	x
5716		Green and White Ash	13	
5717		Green and White Ash	13	x
5718		Boxelder	14	x
5719		Bur Oak	6	x
5720		Black Cherry	7	x
5721		Bur Oak	6	x
5722		Red Oak	9	x
5723		Red Oak	9	
5724		Slippery Elm	8	
5725		Sugar Maple	11	
5726		Boxelder	22	
5727		Green and White Ash	16	
5728		Green and White Ash	16	
5729		Boxelder	8	
5730		Boxelder	13	
5731		Boxelder	19	
5732		Hackberry	14	
5733		Green and White Ash	9	
5734		Green and White Ash	16	
5735		Green and White Ash	10	
5736		Green and White Ash	12	
5737		Green and White Ash	13	
5738		Green and White Ash	17	
5739		Green and White Ash	13	
5740		Eastern Red Cedar	6	
5741		Black Locust	28	
5742		Green and White Ash	7	
5743		Boxelder	8	
5744		Boxelder	11	
5745		Green and White Ash	9	
5746		Green and White Ash	10	
5747		Green and White Ash	13	
5748		Bur Oak	26	
5749		Green and White Ash	7	
5750		Green and White Ash	18	
5751		Bur Oak	30	
5752		Green and White Ash	12	
5753		Green and White Ash	7	
5754		Green and White Ash	11	
5755		Green and White Ash	12	
5756		Green and White Ash	11	
5757		Ironwood	8	
5758		Green and White Ash	9	
5759		Green and White Ash	19	
5760		Green and White Ash	6	
6001		Eastern Red Cedar	10	x
6002		Eastern Red Cedar	10	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
6003		Eastern Red Cedar	19	x
6004		Eastern Red Cedar	11	x
6005	pd 10%	Jack Pine	6	x
6006	x 2 9%	Eastern Red Cedar	23	x
6007	bd 10% dead	Eastern Red Cedar	28	x
6008		Eastern Red Cedar	14	x
6009		Eastern Red Cedar	11	x
6010		Eastern Red Cedar	11	x
6011	bd pd big woodp	Jack Pine	16	x
6012		Jack Pine	11	x
6013		Jack Pine	14	x
6014	bd 10% dead	Jack Pine	14	x
6015	bd 10% dead at	Jack Pine	15	x
6016		Jack Pine	11	x
6017		Jack Pine	8	x
6018		Red (Norway) Pine	16	x
6019		Red (Norway) Pine	16	x
6020		Red (Norway) Pine	11	x
6021		Red Oak	20	x
6022	bd 10% dead br	Red (Norway) Pine	12	x
6023		Unknown Coniferous Tree (Blac	20	x
6024		Norway Spruce	13	x
6025		Sugar Maple	15	x
6026	bd 20% dead br	Red (Norway) Pine	12	x
6027	bd 20% dead br	Red (Norway) Pine	13	x
6028	pd 20	American Elm	18	x
6029		Eastern Red Cedar	17	x
6030		Boxelder	8	x
6031		Green and White Ash	38	x
6032		American Elm	11	x
6034		Cottonwood	84	
6035		American Elm	9	x
6036		Eastern Red Cedar	9	x
6037		Eastern Red Cedar	3	x
6038		Eastern Red Cedar	6	x
6039		Eastern Red Cedar	8	x
6040		Eastern Red Cedar	9	x
6041		Eastern Red Cedar	6	x
6042		Eastern Red Cedar	8	x
6043		Eastern Red Cedar	20	x
6044		Eastern Red Cedar	17	x
6045		Eastern Red Cedar	20	x
6046		Eastern Red Cedar	12	x
6047		Eastern Red Cedar	32	x
6048		Unknown Deciduous Tree	10	x
6049		Eastern Red Cedar	38	x
6050		Eastern Red Cedar	30	
6051		Eastern Red Cedar	5	
6052		Jack Pine	19	
6053		Jack Pine	10	
6054		Jack Pine	24	
6055		Jack Pine	9	
6056		Eastern Red Cedar	7	
6058		Eastern Red Cedar	6	x
6059		Eastern Red Cedar	10	x
6060		Eastern Red Cedar	18	
6061		Eastern Red Cedar	16	
6063		Eastern Red Cedar	12	x
6064		Jack Pine	11	
6065		Eastern Red Cedar	8	
6066		Eastern Red Cedar	8	
6067		Jack Pine	6	
6068		Jack Pine	5	
6069		Jack Pine	6	
6071		Red Oak	8	
6072		Jack Pine	18	
6073		Jack Pine	8	
6074		Jack Pine	7	
6076		Jack Pine	8	
6077		Jack Pine	6	
6078		Jack Pine	7	
6079		Jack Pine	8	
6080		Jack Pine	6	
6081		Jack Pine	8	
6082		Red Oak	7	
6083		Jack Pine	8	
6087		Jack Pine	14	
6088		Jack Pine	20	
6089		Jack Pine	16	
6090		Jack Pine	8	
6091		Jack Pine	10	
6092		Jack Pine	7	
6093		Jack Pine	18	
6094		Jack Pine	9	
6095		Jack Pine	20	
6098		Eastern Red Cedar	24	
6100		Eastern Red Cedar	10	
6101		Siberian Elm	28	x
6102		Siberian Elm	12	x
6103		Siberian Elm	20	x
6104		Eastern Red Cedar	16	x
6105		Eastern Red Cedar	6	x
6106		Green and White Ash	16	x
6107		Fruit Tree	17	x
6108		Fruit Tree	6	x
6109		Honey Locust	16	x
6110		Green and White Ash	20	x
6111		Fruit Tree	6	x
6112		Eastern Red Cedar	20	x
6113		Black Willow	8	x
6114		Black Willow	34	
6115		Red Oak	19	
6116		Jack Pine	11	
6117		Boxelder	10	
6118		Eastern Red Cedar	22	x
6119		Eastern Red Cedar	30	x
6120		Eastern Red Cedar	35	x
6121		Red Oak	28	
6122		Red Oak	39	
6123		Boxelder	8	
6124		Red Oak	24	
6125		Bur Oak	9	
6126		Red Oak	14	
6127		Boxelder	16	
6130		Boxelder	8	
6131		Red Oak	26	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
6132		Boxelder	8	
6133		Boxelder	10	
6136		Boxelder	8	
6137		Boxelder	16	x
6138		Boxelder	20	
6139		Black Cherry	16	
6140		Boxelder	9	
6142		Aspen	10	
6143		Aspen	12	
6144		Boxelder	8	
6145		Boxelder	13	
6148		Boxelder	18	
6153		Red Oak	17	
6154		Aspen	16	
6155		Red Oak	14	
6156		Hackberry	12	
6157		Aspen	12	x
6158		Cottonwood	8	x
6159		Boxelder	8	x
6160		Boxelder	9	x
6161		Fruit Tree	8	x
6162		Eastern Red Cedar	14	x
6163		Eastern Red Cedar	12	x
6164		Colorado Spruce	18	x
6165		Boxelder	8	x
6166		Aspen	8	
6167		Boxelder	24	
6168		Aspen	12	
6169		Aspen	12	
6174		Boxelder	12	
6175		Boxelder	21	x
6176		Boxelder	8	x
6177		Boxelder	8	x
6178		Boxelder	8	x
6179		Boxelder	8	x
6180		Boxelder	8	x
6184		Boxelder	52	
6186		Black Walnut	8	
6187		Boxelder	9	
6188		Boxelder	8	
6189		Boxelder	39	x
6190		Norway Spruce	10	x
6191		Norway Spruce	16	x
6192		Eastern Red Cedar	8	x
6193		Norway Spruce	20	x
6194		Norway Spruce	10	x
6195		Norway Spruce	16	x
6196		Norway Spruce	12	x
6197		Norway Spruce	14	x
6198		Norway Spruce	14	x
6199		Red (Norway) Pine	12	x
6200		Red (Norway) Pine	8	x
6201		Basswood	51	x
6202		Sugar Maple	18	x
6203		Norway Spruce	12	x
6204		Eastern Red Cedar	16	x
6205		Green and White Ash	20	x
6206		Norway Spruce	12	x
6207		Eastern Red Cedar	20	x
6208		Eastern Red Cedar	26	x
6209		Eastern Red Cedar	18	x
6210		Sugar Maple	22	x
6211		Eastern Red Cedar	12	x
6212		Norway Spruce	29	x
6213		Norway Spruce	26	x
6214		Colorado Spruce	14	x
6215		Red (Norway) Pine	15	
6216		Red (Norway) Pine	11	x
6217		White Pine	16	
6218		Red (Norway) Pine	10	
6219		Eastern Red Cedar	14	
6220		Eastern Red Cedar	12	x
6221		Boxelder	9	x
6222		Boxelder	20	x
6223		Boxelder	8	x
6224		Jack Pine	22	x
6225		Green and White Ash	24	x
6226		Jack Pine	17	x
6227		Jack Pine	16	x
6228		Jack Pine	18	x
6229		Red (Norway) Pine	8	x
6230		Eastern Red Cedar	16	x
6231		Jack Pine	9	x
6232		Jack Pine	6	x
6233		Jack Pine	9	x
6234		Jack Pine	21	x
6235		Jack Pine	12	x
6236		Boxelder	26	x
6237		Siberian Elm	26	x
6238		Jack Pine	16	x
6239		Jack Pine	14	x
6240		Jack Pine	10	x
6241		Jack Pine	18	x
6242		Jack Pine	14	x
6243		Jack Pine	13	x
6244		Red Oak	20	x
6245		Eastern Red Cedar	22	x
6246		Siberian Elm	12	x
6247		Jack Pine	20	x
6248		Jack Pine	23	x
6249		Boxelder	8	x
6411		Bur Oak	14	x
6412		Green and White Ash	12	x
6413		Eastern Red Cedar	14	x
6414		Green and White Ash	16	x
6415		Eastern Red Cedar	14	x
6416		Eastern Red Cedar	14	
6417		Boxelder	20	
6418		Eastern Red Cedar	22	
6419		Bur Oak	11	
6421		Boxelder	23	x
6422		Eastern Red Cedar	9	x
6423		Eastern Red Cedar	10	x
6424		Eastern Red Cedar	10	x
6425		Bittemut Hickory	16	x
6426		Bur Oak	10	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
6427		Bur Oak	11	x
6428		Eastern Red Cedar	10	x
6429		Green and White Ash	16	x
6430		Boxelder	10	x
6431		Boxelder	10	x
6432		Eastern Red Cedar	15	
6433		Boxelder	18	
6434		Black Cherry	12	
6435		Green and White Ash	10	
6436		Black Cherry	14	x
6437		Hackberry	6	
6438		Eastern Red Cedar	12	x
6439		Boxelder	14	x
6440		Green and White Ash	9	x
6441		Green and White Ash	10	x
6442		Red Oak	12	x
6443		Black Cherry	25	x
6444		Eastern Red Cedar	16	x
6445		Black Cherry	20	x
6446		Red Oak	23	x
6447		Eastern Red Cedar	5	x
6448		Bittemut Hickory	8	x
6449		Red Oak	20	x
6450		Red Oak	34	x
6451		Red Oak	8	x
6452		Red Oak	30	x
6453		Red Oak	14	x
6454		Red Oak	28	x
6455		Red Oak	38	x
6456		Red Oak	38	x
6457		Red Oak	19	x
6458		Red Oak	38	x
6459		Red Oak	24	x
6460		Eastern Red Cedar	16	x
6464		Eastern Red Cedar	12	
6466		Red Oak	22	x
6467		Red Oak	26	x
6468		Eastern Red Cedar	19	x
6469		Eastern Red Cedar	15	x
6470		Red Oak	26	x
6471		Red Oak	11	x
6472		Red Oak	36	x
6473		Red Oak	39	x
6474		Red Oak	28	x
6475		Red Oak	12	x
6476		Red Oak	18	x
6477		Red Oak	10	x
6478		Red Oak	48	x
6479		Red Oak	28	x
6480		Red Oak	12	x
6481		Red Oak	19	x
6482		Boxelder	20	x
6483		Red Oak	24	x
6484		Hackberry	46	x
6485		Bur Oak	11	x
6486		Red Oak	12	x
6487		Red Oak	13	x
6488		Red Oak	18	x
6489		Red Oak	18	x
6490		Hackberry	43	x
6491		Red Oak	38	x
6492		Red Oak	30	x
6493		Eastern Red Cedar	12	x
6494		Eastern Red Cedar	12	x
6495		Red Oak	11	x
6496		Eastern Red Cedar	12	x
6497		Eastern Red Cedar	10	x
6498		Eastern Red Cedar	7	x
6499		Eastern Red Cedar	12	x
6500		Norway Spruce	12	x
6501		Norway Spruce	14	x
6502		Catalpa	12	x
6503		Norway Spruce	13	x
6504		Jack Pine	8	x
6505		Jack Pine	10	x
6506		Norway Spruce	12	x
6507		Catalpa	24	x
6508		Eastern Red Cedar	29	x
6509		Eastern Red Cedar	14	x
6510		Red Oak	50	x
6511		Red Oak	26	x
6512		Red Oak	23	x
6513		Bur Oak	18	x
6514		Bittemut Hickory	15	x
6515		Bur Oak	13	x
6516		Red Oak	24	x
6517		Red Oak	11	x
6518		Red Oak	8	x
6519		Red Oak	14	x
6520		Red Oak	12	x
6521		Red Oak	12	x
6522		Red Oak	10	x
6523		Red Oak	7	x
6524		Bur Oak	6	x
6525		Bur Oak	11	x
6526		Bur Oak	8	x
6527		Bur Oak	8	x
6528		Red Oak	12	x
6529		Bur Oak	6	x
6530		Bur Oak	7	x
6531		Black Cherry	8	x
6532		Bur Oak	8	x
6533		Bur Oak	6	x
6534		Bur Oak	7	x
6535		Red Oak	20	x
6536		Bur Oak	6	x
6537		Bur Oak	6	x
6538		Red Oak	7	x
6539		Red Oak	46	x
6540		American Elm	12	x
6541		Bittemut Hickory	8	x
6542		Bittemut Hickory	10	x
6543		Bittemut Hickory	6	x
6544		Bur Oak	8	x
6545		Bittemut Hickory	6	x
6546		Bittemut Hickory	10	x

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the state of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

JOHN GRONHOVD, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

106

SHEET 106 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
6547		Bittemut Hickory	15	x
6548		Bur Oak	7	x
6549		American Elm	6	x
6550		Hackberry	10	x
6551		Hackberry	8	x
6552		Bittemut Hickory	13	x
6553		Hackberry	6	x
6554		Bittemut Hickory	12	x
6555		Hackberry	10	x
6556		Red Oak	12	x
6557		Bittemut Hickory	14	x
6558		Bittemut Hickory	7	x
6559		Bittemut Hickory	19	x
6560		Bittemut Hickory	13	x
6561		Hackberry	8	x
6562		Red Oak	22	x
6563		Red Oak	8	x
6564		Bur Oak	21	x
6565		Hackberry	14	x
6566		Hackberry	7	x
6567		Hackberry	11	x
6568		Bittemut Hickory	17	x
6569		Bittemut Hickory	6	x
6570		Bittemut Hickory	8	x
6571		Bittemut Hickory	16	x
6572		Bittemut Hickory	12	x
6573		Hackberry	6	x
6574		Bittemut Hickory	13	
6575		Red Oak	20	
6576		Red Oak	11	x
6577		Red Oak	11	x
6578		Hackberry	12	x
6579		Green and White Ash	8	x
6580		Bittemut Hickory	10	x
6581		Bittemut Hickory	14	x
6582		Boxelder	10	x
6583		American Elm	11	x
6584		Bur Oak	8	x
6585		Red Oak	17	x
6586		Bur Oak	14	x
6587		Basswood	46	x
6588		Red Oak	16	x
6589		American Elm	6	x
6590		Red Oak	7	x
6591		Hackberry	10	x
6592		Hackberry	10	x
6593		Red Oak	9	x
6594		Red Oak	12	x
6595		Eastern Red Cedar	12	x
6596		Hackberry	7	x
6597		Eastern Red Cedar	9	x
6598		Hackberry	13	x
6599		Hackberry	14	x
6600		Hackberry	10	x
6601		Hackberry	10	x
6602		American Elm	8	x
6603		Green and White Ash	18	x
6604		Green and White Ash	18	x
6605		American Elm	8	x
6606		Red Oak	14	x
6607		Green and White Ash	15	x
7001		Siberian Elm	12	x
7002		Siberian Elm	11	x
7003		Siberian Elm	11	x
7004		Siberian Elm	7	x
7005		Siberian Elm	7	x
7006		Green and White Ash	9	x
7007		Eastern Red Cedar	7	x
7008		Siberian Elm	6	x
7009		Siberian Elm	9	x
7010		Green and White Ash	8	x
7011		Siberian Elm	7	x
7012		Boxelder	11	x
7013		Eastern Red Cedar	12	x
7014		Eastern Red Cedar	10	x
7015		Green and White Ash	6	x
7016		Eastern Red Cedar	8	x
7017		Siberian Elm	9	x
7018		Eastern Red Cedar	10	x
7019		Slippery Elm	16	x
7020		Boxelder	30	x
7021		Boxelder	18	x
7022		Slippery Elm	6	x
7023		Eastern Red Cedar	8	x
7024		Boxelder	25	x
7025		Boxelder	15	x
7026		Boxelder	17	x
7027		Boxelder	18	x
7028		Boxelder	10	x
7029		Boxelder	17	x
7030		Boxelder	15	x
7031		Black Cherry	12	x
7032		Bur Oak	7	
7033		Black Cherry	7	x
7034		Black Cherry	16	x
7035		Boxelder	60	x
7036		Black Cherry	7	x
7037		Black Cherry	9	x
7038	bd 10% dead	Red Oak	11	x
7039		Bur Oak	20	
7040		Black Cherry	18	
7041		Red Oak	26	
7044		Bur Oak	20	
7047		Bur Oak	10	
7048		Green and White Ash	11	x
7049		Bur Oak	15	x
7050		Green and White Ash	6	
7051		Green and White Ash	13	
7053		Bur Oak	7	
7054		Black Cherry	12	
7055		Boxelder	14	
7056		Green and White Ash	8	
7057		Green and White Ash	6	
7058		Boxelder	11	
7059		Boxelder	11	
7060		Black Cherry	11	
7061		Boxelder	9	
7062		Green and White Ash	8	
7063		Black Cherry	12	
7064		Black Cherry	15	
7065		Boxelder	8	
7066		Boxelder	8	
7067		Boxelder	14	
7068		Boxelder	8	
7069		Black Willow	7	
7070		Boxelder	10	x
7071		Boxelder	15	x
7072		Boxelder	9	x
7073		Boxelder	17	x
7074		Black Cherry	12	
7075		Boxelder	13	x
7076		Boxelder	8	x
7077		Boxelder	13	x
7078		Boxelder	11	x
7079		Black Cherry	11	x
7080		Black Cherry	8	x
7081		Red Oak	18	x
7082		Boxelder	8	x
7083		Black Cherry	11	x
7084		Boxelder	9	x
7085		Boxelder	33	x
7086		Boxelder	14	x
7087		Black Cherry	18	x
7088		Boxelder	31	x
7089		Boxelder	8	x
7090		Boxelder	8	x
7091		Boxelder	11	x
7092		Black Cherry	7	x
7093		Boxelder	19	x
7094		American Elm	29	x
7095		Boxelder	36	x
7096		American Elm	11	x
7097		Boxelder	13	x
7098		Slippery Elm	7	x
7099		Boxelder	18	x
7100		Slippery Elm	10	x
7101		Slippery Elm	13	x
7102		Boxelder	15	x
7103		Boxelder	12	x
7104		Boxelder	19	x
7105		Boxelder	23	x
7106		Sugar Maple	11	x
7107		Black Willow	7	x
7108		Bur Oak	20	x
7109		Boxelder	18	x
7110		Boxelder	12	x
7111		Boxelder	12	x
7112		Boxelder	35	x
7113		Boxelder	11	x
7114		Green and White Ash	7	x
7115		Boxelder	11	x
7116		Boxelder	8	x
7117		Boxelder	14	x
7118		Boxelder	14	x
7119		Boxelder	12	x
7120		Boxelder	8	x
7121		Boxelder	8	x
7122		Boxelder	14	x
7123		Green and White Ash	16	x
7124		Boxelder	21	x
7125		Boxelder	16	x
7126		Green and White Ash	7	x
7127		Black Willow	12	x
7128		Black Cherry	10	x
7129		Boxelder	8	x
7130		Green and White Ash	7	x
7131		Black Cherry	15	x
7132		Green and White Ash	7	x
7133		Boxelder	8	x
7134		Black Cherry	8	x
7135		Black Cherry	9	x
7136		Eastern Red Cedar	19	x
7137		Red Oak	13	x
7138		Green and White Ash	9	x
7139		Hackberry	10	x
7140		Green and White Ash	10	x
7141		Boxelder	11	x
7142		Boxelder	12	x
7143		Boxelder	15	x
7144		Boxelder	10	x
7145		Slippery Elm	7	x
7146		Boxelder	14	x
7147		Boxelder	14	x
7148		Boxelder	7	x
7149		Boxelder	12	x
7150		Boxelder	10	x
7151		Boxelder	28	x
7152		Boxelder	9	x
7153		Boxelder	8	x
7154		Boxelder	9	x
7155		Green and White Ash	13	x
7156		Green and White Ash	12	x
7157		Boxelder	8	x
7158		Boxelder	17	x
7159		Green and White Ash	9	x
7160		Boxelder	8	x
7161		Boxelder	10	x
7162		Boxelder	10	x
7163		Boxelder	10	x
7164		Boxelder	11	x
7165		Black Cherry	15	x
7166		Boxelder	8	x
7167		Boxelder	27	x
7168		Black Cherry	10	x
7169		Boxelder	8	x
7170		Boxelder	10	x
7171		Boxelder	19	x
7172		Boxelder	8	x
7173		Hackberry	19	x
7174		Boxelder	12	x
7175		Green and White Ash	8	
7176		Green and White Ash	6	
7177		Bur Oak	26	
7178		Boxelder	11	
7179		Boxelder	16	
7180		Boxelder	14	
7181		Boxelder	13	x
7182		Boxelder	20	
7183		Green and White Ash	13	
7184		Boxelder	9	x
7185		Boxelder	12	x
7186		Boxelder	10	x
7187		Boxelder	21	x
7188		Boxelder	11	x
7189		Boxelder	13	
7190		Boxelder	9	
7191		Boxelder	16	
7192		Boxelder	6	
7193		Boxelder	17	x
7194		Green and White Ash	7	x
7195		Boxelder	8	x
7196		Hackberry	11	x
7197		Hackberry	19	x
7198		Boxelder	10	x
7199		Bur Oak	18	x
7200		Boxelder	15	x
7201		Boxelder	10	x
7202		Boxelder	9	x
7203		Boxelder	17	x
7204		Boxelder	9	x
7205		Boxelder	11	x
7206		Boxelder	12	x
7207		Boxelder	8	x
7208		Boxelder	10	x
7209		Boxelder	11	x
7210		Green and White Ash	14	x
7211		Green and White Ash	12	x
7212		Boxelder	11	x
7213		Boxelder	9	x
7214		Boxelder	18	x
7215		Green and White Ash	10	x
7216		Green and White Ash	9	x
7217		Boxelder	8	x
7218		Green and White Ash	6	x
7219		Green and White Ash	11	x
7220		Black Cherry	8	x
7221		Green and White Ash	8	x
7222		Green and White Ash	7	x
7223		Green and White Ash	16	x
7224		Boxelder	12	x
7225		Green and White Ash	13	
7226		Black Cherry	7	
7227		Basswood	48	
7228		Boxelder	11	
7229		Boxelder	12	
7230		Slippery Elm	9	
7231		American Elm	15	
7238		Boxelder	8	
7239		Green and White Ash	42	
7240		Boxelder	8	
7241		Hackberry	12	
7242		Sugar Maple	11	
7243		Green and White Ash	22	
7244		American Elm	7	
7245		American Elm	6	
7246		Siberian Elm	6	
7247		American Elm	6	
7248		Bur Oak	25	
7250		Sugar Maple	7	
7252		Sugar Maple	6	
7258		Sugar Maple	11	
7259		Sugar Maple	9	
7260		Sugar Maple	9	
7261		Sugar Maple	10	
7262		Green and White Ash	13	
7263		Sugar Maple	14	
7264		Green and White Ash	20	
7265		Sugar Maple	6	
7266		Green and White Ash	18	
7267		Green and White Ash	18	
7268		American Elm	11	
7269		Green and White Ash	14	
7271		Sugar Maple	6	
7272		Green and White Ash	12	
7273		Hackberry	7	
7274		Hackberry	6	
7276		Green and White Ash	8	x
7277		Green and White Ash	8	x
7278		Bur Oak	12	x
7279		Bur Oak	10	x
7280		Boxelder	55	x
7281		Black Locust	8	x
7282		Green and White Ash	8	x
7283		Black Locust	24	x
7284		Black Locust	36	x
7285		Boxelder	12	x
7286		American Elm	6	x
7287		American Elm	8	x
7288		American Elm	7	x
7289		Boxelder	9	x
7290		Green and White Ash	6	x
7291		Green and White Ash	12	x
7292		Bur Oak	23	x
7293		Bur Oak	23	x
7294		American Elm	7	x
7295		Green and White Ash	7	x
7296		Boxelder	29	x
7297		Bur Oak	40	x
7298		Bur Oak	14	x
7299		Green and White Ash	7	x
7300		Green and White Ash	11	x
7301		American Elm	8	
7302		Green and White Ash	6	
7303		Green and White Ash	9	
7304		Green and White Ash	6	
7305		Green and White Ash	6	
7306		Bur Oak	23	
7307		Boxelder	8	
7308		Ironwood	7	
7309		Ironwood	7	
7310		Red Oak	13	x
7311		Green and White Ash	8	x
7312		Bur Oak	30	x
7313		Bur Oak	29	x
7314		Ironwood	8	x
7315		Bur Oak	25	x
7316		Bur Oak	22	x
7317		Boxelder	12	x
7318		Green and White Ash	6	x
7319		Red Oak	15	x
7320		Boxelder	12	
7321		Bur Oak	25	
7322		Black Cherry	6	x
7323		Boxelder	11	x
7324		Green and White Ash	6	x
7325		Red Oak	17	
7326		Boxelder	7	x
7327		Bur Oak	19	x
7328		Bur Oak	20	x
7329		Boxelder	8	x
7330		Bur Oak	21	x
7331		Boxelder	11	x
7332		Boxelder	8	x
7333		Bur Oak	23	x
7334		Boxelder	10	x
7335		Green and White Ash	9	x
7336		Red Oak	12	
7337		Red Oak	14	
7338		Red Oak	24	
7339		Red Oak	17	
7340		Red Oak	17	
7341		Red Oak	19	
7342		Boxelder	24	
7343		Red Oak	8	
7344	pd 10% dead	Red Oak	15	
7345		Boxelder	10	
7346		Red Oak	13	
7347		Boxelder	10	
7348		Boxelder	18	
7349		Boxelder	10	
7350		Boxelder	12	
7351		Boxelder	10	
7352		Boxelder	14	
7353		Boxelder	11	
7354		Red Oak	13	
7355		Boxelder	12	
7356		Boxelder	8	
7357		Boxelder	11	
7358		Boxelder	14	
7359		Boxelder	13	
7360		Boxelder	17	
7361		Boxelder	16	
7362		Boxelder	24	
7363		Boxelder	10	
7364		Boxelder	14	
7365		Boxelder	13	
7366		Boxelder	23	
7367		Boxelder	10	
7368		Boxelder	15	
7369		Boxelder	18	x
7370		Bur Oak	27	x
7371		Boxelder	8	x
7372		Bur Oak	18	x
7373		Boxelder	10	x
7374		Boxelder	8	x
7375		Red Oak	6	x
7376		Red Oak	18	x
7377		Boxelder	11	x
7378		Boxelder	12	
7379		Red Oak	11	x
7380		Boxelder	13	
7381		Red Oak	6	
7382		Red Oak	11	
7383		Boxelder	20	
7384		Boxelder	8	x
7385		Boxelder	9	x
7386		Boxelder	16	x
7387		Boxelder	9	x
7388		Boxelder	13	x
7389		Boxelder	9	x
7390		Bur Oak	22	x
7391		Black Cherry	10	x
7392		Ironwood	9	x
7393		Hackberry	6	x
7394		Boxelder	15	x
7395		Black Cherry	17	x
7396		Boxelder	13	x
7397		Sugar Maple	13	x
7398		Boxelder	11	x
7399		Bur Oak	22	x
7400		Boxelder	10	x
7401		Bur Oak	33	x
7402		American Elm	6	x
7403		Boxelder	14	x
7404		Green and White Ash	6	x
7405		Red Oak	12	x
7406		Red Oak	12	x
7407		Black Cherry	12	x
7408		Bur Oak	19	x
7409		Bur Oak	18	x
7410		Boxelder	14	x
7411		Boxelder	11	x
7412		Red Oak	14	x
7413		Boxelder	9	x
7414		Boxelder	11	x
7415		Boxelder	12	x
7416		Boxelder	12	x
7417		Ironwood	6	x
7418		Boxelder	10	x
7419		Boxelder	13	x
7420		Boxelder	10	x
7421		Boxelder	8	x
7422		Green and White Ash	14	x
7423		Green and White Ash	12	x
7424		Boxelder	9	x
7425		Green and White Ash	12	x
7426		Green and White Ash	10	x
7427		Boxelder	9	x
7428		Green and White Ash	11	x
7429		Boxelder	11	x
7430	pd 10% dead	Bur Oak	22	x
7431		Boxelder	10	x
7432		Boxelder	18	x
7433		Boxelder	9	x
7434		Boxelder	10	x
7435		Red Oak	7	x
7436		Sugar Maple	14	x
7437		Bur Oak	22	x
7438		Green and White Ash	10	x
7439		American Elm	8	
7440		Red Oak	8	
7441		Red Oak	12	
7442		American Elm	8	
7444		Red Oak	7	
7445		Black Cherry	6	
7446		Sugar Maple	7	
7449		Ironwood	6	
7451		Ironwood	6	
7452		Ironwood	11	
7453		Red Oak	9	
7454		Red Oak	8	
7455		American Elm	10	
7456		American Elm	8	
7457		Bur Oak	22	
7458		American Elm	7	
7459		American Elm	6	
7460		Green and White Ash	11	
7461		Green and White Ash	11	
7462		Green and White Ash	9	
7463		Red Oak	6	
7464		American Elm	7	
7468		Bur Oak	30	
7469		Ironwood	6	
7470		Ironwood	6	
7471		Ironwood	14	
7472		Green and White Ash	6	
7473		Black Cherry	13	
7474		Boxelder	11	x
7475		Red Oak	17	
7476		Red Oak	12	
7477		Ironwood	7	
7478		Red Oak	13	
7479		Red Oak	21	
7480		Green and White Ash	7	x
7481		Green and White Ash	8	x
7482		Green and White Ash	12	
7483		Bur Oak	10	
7484		Green and White Ash	7	
7485		Green and White Ash	9	
7486		Green and White Ash	11	
7487		Bur Oak	9	x
7488		Bur Oak	6	
7489		Green and White Ash	12	x
7490		Siberian Elm	11	
7491		Green and White Ash	16	
7492		Green and White Ash	12	x
7493		Green and White Ash	14	x
7495		Boxelder	9	
7496		Green and White Ash	11	
7497		Boxelder	9	
7498		Boxelder	22	
7499		Fruit Tree	10	
7500		Green and White Ash	6	
7501		Green and White Ash	13	
7505		Eastern Red Cedar	80	
7506		Ironwood	10	
7507		Sugar Maple	9	
7508		Hackberry	7	
7510		Ironwood	9	
7511		Red Oak	7	x
7512		Boxelder	13	x
7513		Boxelder	12	x
7514		Boxelder	17	x
7515		Boxelder	8	x
7516		Green and White Ash	11	x
7517		Green and White Ash	6	
7518		Green and White Ash	8	
7519		Boxelder	48	
7520		American Elm	12	
7521		Green and White Ash	14	
7522		Green and White Ash	10	
7523		Green and White Ash	18	
7526		Green and White Ash	11	
7527		Sugar Maple	9	
7528		Green and White Ash	16	
7529		Green and White Ash	10	
7530		Green and White Ash	9	
7531		Green and White Ash	19	
7532		Green and White Ash	11	
7533		Green and White Ash	11	
7534		Green and White Ash	16	
7535		Green and White Ash	10	
7536		Green and White Ash	8	
7541		Green and White Ash	14	
7544		Ironwood	9	
7545		Ironwood	6	
7546		Ironwood	9	
7547		Ironwood	13	x
7548		Green and White Ash	18	
7549		Sugar Maple	13	x
7550		Sugar Maple	13	x
7551		Green and White Ash	14	x
7552		Green and White Ash	11	x
7553		Sugar Maple	15	x
7554		Green and White Ash	7	x
7555		Green and White Ash	12	x
7556		Green and White Ash	12	x
7557		Sugar Maple	10	x
7558		Sugar Maple	9	x

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TREE INVENTORY

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JOHN GRONHOVD, PLA, ASLA

Date License No.

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BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
7559		Green and White Ash	13	x
7560		Green and White Ash	9	x
7561	bd 5% dead	Sugar Maple	11	x
7562		Sugar Maple	9	x
7563		Green and White Ash	22	x
7564		Ironwood	7	x
7565		Hackberry	17	x
7566		Ironwood	6	x
7567		Green and White Ash	16	x
7568		Bur Oak	28	x
7569		Ironwood	6	x
7570		Ironwood	6	x
7571		Ironwood	7	x
7572		Green and White Ash	12	x
7573		Sugar Maple	7	x
7574		Hackberry	9	x
7575	bd 10% dead	Hackberry	7	x
7576		Bur Oak	25	x
7577		American Elm	12	x
7578		Sugar Maple	8	x
7579		Sugar Maple	21	x
7580		Sugar Maple	10	x
7581		Sugar Maple	8	x
7582		Sugar Maple	13	x
7583		Green and White Ash	14	x
7584		Green and White Ash	16	x
7585		Sugar Maple	10	x
7586		Bittemut Hickory	6	x
7587		Green and White Ash	16	x
7588		Sugar Maple	7	x
7589		Hackberry	8	x
7590		Hackberry	16	x
7591		Sugar Maple	11	x
7592		Sugar Maple	10	x
7593		American Elm	16	x
7594		Hackberry	16	x
7595		Hackberry	12	x
7596		Sugar Maple	6	x
7597		Sugar Maple	6	x
7598		Hackberry	9	x
7599		Hackberry	6	x
7600		American Elm	9	x
7601		Sugar Maple	9	x
7602		Green and White Ash	11	x
7603		Bur Oak	23	x
7604		Bittemut Hickory	7	x
7605		Green and White Ash	14	x
7606		Green and White Ash	7	x
7607		Hackberry	9	x
7608		American Elm	6	x
7609		Bur Oak	23	x
7610		Boxelder	9	x
7611		Boxelder	9	x
7612		Sugar Maple	13	x
7613		American Elm	10	x
7614		Green and White Ash	11	x
7615		American Elm	16	x
7616		Sugar Maple	10	x
7617		Sugar Maple	10	x
7618		Sugar Maple	16	x
7619		Sugar Maple	11	x
7620		American Elm	23	x
7621		Sugar Maple	7	x
7622		Sugar Maple	8	x
7623		Sugar Maple	8	x
7624		Hackberry	18	x
7625		Sugar Maple	11	x
7626		Green and White Ash	12	x
7627		Green and White Ash	12	x
7628		Green and White Ash	19	x
7629		Green and White Ash	6	x
7630		American Elm	13	x
7631		Green and White Ash	15	
7634		Hackberry	8	
7636		Green and White Ash	13	
7637		Green and White Ash	10	
7639		Green and White Ash	9	
7640		Green and White Ash	14	
7641		Green and White Ash	8	
7642		Green and White Ash	9	
7643		Green and White Ash	15	
7644		Green and White Ash	9	
7645		Green and White Ash	8	
7647		Green and White Ash	14	
7648		Green and White Ash	9	
7649		Green and White Ash	7	
7650		Green and White Ash	7	
7651		Green and White Ash	8	
7652		Green and White Ash	10	
7653		Green and White Ash	13	
7654		Green and White Ash	12	
7655		Bittemut Hickory	7	
7656		Green and White Ash	11	
7657		Sugar Maple	9	
7658		Sugar Maple	11	
7659		Black Cherry	11	
7660		Sugar Maple	6	
7661		Sugar Maple	10	
7662		Sugar Maple	15	
7663		Bittemut Hickory	11	
7664		Green and White Ash	13	
7665		Sugar Maple	7	
7666		Sugar Maple	11	x
7667		Sugar Maple	8	x
7668		Sugar Maple	9	x
7669		Sugar Maple	11	x
7670		Sugar Maple	13	x
7671		Sugar Maple	7	x
7672		Sugar Maple	6	x
7673		Sugar Maple	8	x
7674		Sugar Maple	10	x
7675		Sugar Maple	9	x
7676		Sugar Maple	10	x
7677		Green and White Ash	13	x
7678		Green and White Ash	16	
7679		Green and White Ash	6	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
7680		Sugar Maple	8	x
7681		Green and White Ash	10	x
7682		Sugar Maple	13	x
7683		Hackberry	9	x
7684		Green and White Ash	7	x
7685		Sugar Maple	13	x
7686		Black Cherry	18	x
7687		Green and White Ash	6	
7688		Black Cherry	12	x
7689		Slippery Elm	8	x
7690		Bittemut Hickory	12	x
7691	0	Sugar Maple	9	x
7692		Green and White Ash	16	x
7693		Sugar Maple	13	x
7694		Green and White Ash	9	x
7695		Green and White Ash	18	x
7696		Sugar Maple	7	x
7697		Sugar Maple	11	x
7698		Sugar Maple	10	x
7699		Sugar Maple	8	x
7700		Sugar Maple	6	x
7701		Sugar Maple	7	x
7702		Sugar Maple	11	x
7703		Sugar Maple	11	x
7704		Sugar Maple	11	x
7705		Sugar Maple	14	x
7706		Bittemut Hickory	8	x
7707		Sugar Maple	8	x
7708		Sugar Maple	9	x
7709		Sugar Maple	6	x
7710		Bittemut Hickory	7	x
7711		Paper, Yellow, and River Birch	6	x
7712		Hackberry	7	x
7713		Sugar Maple	9	x
7714		Sugar Maple	6	x
7715		Sugar Maple	6	x
7716		Sugar Maple	6	x
7717		Sugar Maple	14	x
7718		Bittemut Hickory	11	x
7719		Sugar Maple	9	x
7720		Sugar Maple	8	x
7721		Hackberry	7	x
7722		Sugar Maple	9	x
7723		Bittemut Hickory	13	x
7724		Hackberry	7	x
7725		Hackberry	6	x
7726		Hackberry	17	x
7727		Hackberry	6	x
7728		Green and White Ash	14	x
7729		Hackberry	6	x
7730		Red Oak	53	x
7731		Sugar Maple	9	x
7732		Sugar Maple	25	x
7733		Red Oak	23	x
7734		Red Oak	35	x
7735		Sugar Maple	9	x
7736		Sugar Maple	7	x
7737		Sugar Maple	13	x
7738		Sugar Maple	7	x
7739		Sugar Maple	7	x
7740		Sugar Maple	8	x
7741		Sugar Maple	8	x
7742		Green and White Ash	20	
7743		Sugar Maple	7	x
7744		Sugar Maple	6	
7745		Sugar Maple	6	x
7746		Sugar Maple	6	x
7747		Sugar Maple	6	x
7750		Ironwood	6	
7752		Sugar Maple	8	x
7753		Bittemut Hickory	13	x
7755		Sugar Maple	7	x
7756		Sugar Maple	8	x
7757		Green and White Ash	13	
7758		Red Oak	11	
7759		Green and White Ash	12	
7760		Bittemut Hickory	12	
7761		Bittemut Hickory	7	
7763		Sugar Maple	9	
7764		Green and White Ash	13	
7765		Bittemut Hickory	10	
7766		Green and White Ash	10	
7767		Green and White Ash	9	
7768		Green and White Ash	8	
7769		Bittemut Hickory	11	
7770		Bittemut Hickory	11	
7771		Green and White Ash	13	
7772		Bittemut Hickory	13	
7773		Bittemut Hickory	13	
7774		Bittemut Hickory	13	
7775		Bittemut Hickory	7	
7776		Bittemut Hickory	10	
7777		Bittemut Hickory	9	
7778		Sugar Maple	9	
7779		Bittemut Hickory	8	
7780		Red Oak	16	
7781		Green and White Ash	11	
7782		Bittemut Hickory	6	
7783		Ironwood	10	
7784		Red Oak	23	
7785		Bittemut Hickory	11	
7786		Ironwood	8	
7787		Bittemut Hickory	9	
7788		Ironwood	11	
7789		Green and White Ash	11	
7790		Red Oak	16	
7791		Bittemut Hickory	6	
7792		Bittemut Hickory	10	
7793		Bittemut Hickory	11	
7794		Red Oak	16	
7795		Green and White Ash	10	
7799		Red Oak	16	
7800		Red Oak	10	
7801		Bittemut Hickory	9	
7802		Green and White Ash	10	
7803		Sugar Maple	10	

Tag ID	Notes	Species	SIZE (DBH)	Remove
7804		Sugar Maple	11	
7805		Red Oak	13	
7806		Green and White Ash	13	
7807		Red Oak	12	
7808		Bittemut Hickory	10	
7809		Bittemut Hickory	11	
7810		Bittemut Hickory	7	
7811		Bittemut Hickory	8	
7812		Bittemut Hickory	6	
7813		Bittemut Hickory	15	
7814		Bittemut Hickory	8	
7815		Red Oak	23	
7816		Green and White Ash	12	
7817		Bittemut Hickory	6	
7818		Bittemut Hickory	10	
7819		Bittemut Hickory	7	
7820		Ironwood	6	
7821		Bittemut Hickory	9	
7822		Bittemut Hickory	7	
7823		Bittemut Hickory	9	
7824		Bittemut Hickory	13	
7825		Red Oak	31	
7826		Ironwood	6	
7827		Bittemut Hickory	10	
7828		Bittemut Hickory	7	
7829		Bittemut Hickory	13	
7830		Bittemut Hickory	12	
7831		Bittemut Hickory	9	
7832		Bittemut Hickory	8	
7833		Bittemut Hickory	8	
7834		Black Cherry	6	
7835		Ironwood	7	
7836		Ironwood	11	
7837		Bittemut Hickory	7	
7838		Bittemut Hickory	10	
7839		Red Oak	8	
7840		Red Oak	22	
7841		Hackberry	6	
7842		Bittemut Hickory	9	
7843		Green and White Ash	13	
7844		Bittemut Hickory	11	
7845		Ironwood	13	
7846		Bittemut Hickory	9	
7847		Ironwood	11	
7848		Black Cherry	7	
7849		Red Oak	9	
7850		Bittemut Hickory	12	
7851		Red Oak	12	
7852		Bittemut Hickory	12	
7853		Red Oak	11	
7854		Red Oak	15	
7855		Bittemut Hickory	13	
7856		Green and White Ash	18	
7857		Black Cherry	11	
7858		Black Cherry	6	
7859		Red Oak	10	
7860	bd 10% dead	Red Oak	17	
7861		Bittemut Hickory	8	
7862		Red Oak	45	
7863		Bittemut Hickory	6	
7864		Bittemut Hickory	8	
7865		Bur Oak	17	
7866		Bittemut Hickory	10	
7867		Red Oak	8	
7868		Red Oak	18	
7869		Bittemut Hickory	9	
7870		Bittemut Hickory	12	
7871		Bittemut Hickory	7	
7872		Red Oak	11	
7873		Red Oak	10	
7874		Red Oak	9	
7875		Red Oak	16	
7876		Red Oak	14	
7877		Bur Oak	13	
7878		Ironwood	6	
7879		Red Oak	10	
7880		Red Oak	16	
7881		Green and White Ash	13	
7882		Ironwood	13	
7883		Bittemut Hickory	10	
7884		Bittemut Hickory	6	
7885		Bittemut Hickory	6	
7886		Bittemut Hickory	10	
7887		Red Oak	16	
7888		Bur Oak	19	
7891		Bittemut Hickory	6	
7895		Hackberry	6	
7905		Bur Oak	15	
7906		Ironwood	7	
7907		Ironwood	6	
7908		Bittemut Hickory	16	
7909		Bittemut Hickory	7	
7910		Red Oak	7	
7911		Eastem Red Cedar	8	
7912		Red Oak	9	
7913		Ironwood	6	
7914		Green and White Ash	9	
7915		Red Oak	19	
7916		Green and White Ash	13	
7917		Green and White Ash	14	
7918		Red Oak	7	
7919		Red Oak	20	
7920		Red Oak	14	
7921		Bittemut Hickory	9	
7922		Green and White Ash	16	
7923		Red Oak	15	
7924		Red Oak	8	
7925		Bittemut Hickory	7	
7926		Red Oak	12	
7927		Ironwood	8	
7928		Red Oak	21	
7929		Red Oak	13	
7930		Bittemut Hickory	11	
7931		Red Oak	11	
7932		Red Oak	14	
7933		Red Oak	14	

Tag ID	Notes	Species	SIZE (DBH)	Remove
7934		Red Oak	17	
7935	bd 10% dead	Red Oak	11	
7936		Red Oak	11	
7937		Red Oak	13	
7938		Red Oak	11	
7939		Red Oak	11	
7940		Red Oak	16	
7941		Red Oak	12	
7942		Ironwood	11	
7943		Ironwood	9	
7944		Red Oak	18	
7945		Red Oak	15	
7946		Red Oak	12	
7947		Red Oak	27	
7948		Red Oak	23	
7949		Red Oak	22	
7950		Red Oak	14	
7951		Red Oak	13	
7952		Bittemut Hickory	9	
7953		Bittemut Hickory	7	
7954		Bittemut Hickory	7	
7955		Bittemut Hickory	7	
7956		Red Oak	20	
7957		Red Oak	13	
7958		Green and White Ash	11	
7959		Red Oak	14	
7960		Red Oak	14	
7961		Bittemut Hickory	8	
7962		Bittemut Hickory	9	
7963		Red Oak	16	
7964		Red Oak	15	
7965		Green and White Ash	8	
7966		Green and White Ash	15	
7967		Green and White Ash	19	
7968		Red Oak	28	
7969		Hackberry	6	
7970		Bittemut Hickory	6	x
7971		Hackberry	20	x
7972		Sugar Maple	6	x
7973		Green and White Ash	17	
7974		Black Cherry	8	x
7975		Red Oak	14	
7976		Hackberry	11	x
7977		Red Oak	16	x
7978		Red Oak	12	x
7979		Sugar Maple	7	x
7980		Hackberry	8	x
7981		Red Oak	45	x
7982		Bittemut Hickory	9	x
7983		Green and White Ash	16	x
7984		Sugar Maple	15	x
7985		Hackberry	7	x
7986		Hackberry	12	x
7987		Sugar Maple	8	x
7988		Hackberry	9	x
7989		Hackberry	6	x
7990		Hackberry	15	x
7991		Sugar Maple	6	x
7992	bd 5% dead	Black Cherry	17	x
7993		Sugar Maple	6	x
7994		Bur Oak	16	x
7995		Eastem Red Cedar	9	x
7996		Red Oak	20	x
7997		Red Oak	23	x
7998		Red Oak	26	x
7999		Sugar Maple	6	x
8001		Hackberry	13	x
8002		Hackberry	12	x
8003		Siberian Elm	9	x
8004		Siberian Elm	16	x
8005		Siberian Elm	6	x
8006		Eastem Red Cedar	5	x
8007		Eastem Red Cedar	7	x
8008		Eastem Red Cedar	6	x
8009		Green and White Ash	7	x
8010		Eastem Red Cedar	5	x
8011		Green and White Ash	6	x
8012		Eastem Red Cedar	12	x
8013		Eastem Red Cedar	5	x
8014		Eastem Red Cedar	5	x
8015		Eastem Red Cedar	11	x
8016		Eastem Red Cedar	9	x
8017		Boxelder	8	x
8018		Green and White Ash	12	x
8019		Boxelder	10	x
8020		Boxelder	8	x
8021		Eastem Red Cedar	7	x
8022		Eastem Red Cedar	6	x
8023		Siberian Elm	16	x
8024		Eastem Red Cedar	10	x
8025		Green and White Ash	6	x
8026		Green and White Ash	15	x
8027		Green and White Ash	6	x
8028		Eastem Red Cedar	5	x
8029		Red Oak	13	x
8030		Eastem Red Cedar	12	x
8031		Eastem Red Cedar	13	x
8032		Eastem Red Cedar	13	x
8033		Eastem Red Cedar	5	x
8034		Siberian Elm	18	x
8035		Red Oak	8	x
8036		Red Oak	20	x
8037		Bur Oak	7	x
8038		Eastem Red Cedar	4	x
8039		Red Oak	9	x
8040		Red Oak	13	x
8041		Red Oak	11	x
8042		Red Oak	10	x
8043		Eastem Red Cedar	5	x
8044		Red Oak	18	x
8045		Ironwood	14	x
8046		Red Oak	14	x
8047		Ironwood	9	x
8048		Eastem Red Cedar	10	x
8049		Eastem Red Cedar	7	x
8050		Eastem Red Cedar	6	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
8051		Eastem Red Cedar	7	x
8052		Eastem Red Cedar	8	x
8053		Eastem Red Cedar	6	x
8054		Black Cherry	6	x
8055		Black Cherry	6	x
8056		Eastem Red Cedar	12	x
8057		Green and White Ash	14	x
8058		Eastem Red Cedar	7	x
8059		Eastem Red Cedar	6	x
8060		Eastem Red Cedar	11	x
8061		Black Walnut	35	x
8062		Green and White Ash	14	x
8063		Red Oak	12	x
8064		Bur Oak	14	x
8065		Bur Oak	8	x
8066		Green and White Ash	25	
8067		Red Oak	8	x
8068		Bur Oak	6	x
8069		Green and White Ash	13	
8070		Red Oak	23	
8071		Red Oak	14	
8072		Jack Pine	15	
8073		Jack Pine	11	
8074		Jack Pine	14	
8075		Jack Pine	16	
8076		Red Oak	6	
8077		Red Oak	22	
8078		Red Oak	6	
8079		Red Oak	17	
8080		Red Oak	6	
8081		Jack Pine	20	
8082		Scotch Pine	14	
8083		Scotch Pine	8	
8084		Scotch Pine	15	
8085		White Pine	21	
8086		White Pine	16	
8087		White Pine	21	
8088		White Pine	21	
8089		Bur Oak	7	
8090		Bur Oak	7	
8091		Red Oak	22	
8092		White Pine	18	
8093		White Pine	10	
8094		White Pine	18	
8095		White Pine	13	
8096		White Pine	18	
8097		White Pine	12	
8098		White Pine	22	
8099		Eastem Red Cedar	11	
8100		White Pine	22	
8101		White Pine	11	
8102		White Pine	23	
8103		White Pine	14	
8104		White Pine	13	
8105		Bur Oak	18	
8106		Bur Oak	43	
8107		Bur Oak	14	
8108		Ironwood	17	
8109		Bittemut Hickory	6	
8110		Bittemut Hickory	16	
8111		Bur Oak	10	
8112		Bittemut Hickory	6	
8113		Hackberry	7	
8114		Bittemut Hickory	9	
8115		Bur Oak	15	
8116		Green and White Ash	24	
8117		Bittemut Hickory	6	
8118		Bittemut Hickory	6	
8119		Bittemut Hickory	8	
8120		Hackberry	7	
8121		Bur Oak	12	
8122		Bittemut Hickory	13	
8123		Red Oak	26	
8124		Bittemut Hickory	11	
8125		Red Oak	17	
8126		Bittemut Hickory	6	
8127		Red Oak	19	
8128		Bittemut Hickory	6	
8129		Bittemut Hickory	9	
8130		Bittemut Hickory	11	
8131		Bittemut Hickory	24	
8132		Bittemut Hickory	26	
8133		Green and White Ash	7	
8134		Green and White Ash	12	
8135		Hackberry	7	
8136		Bittemut Hickory	12	
8137		Red Oak	29	
8138		Hackberry	17	
8139		Bittemut Hickory	8	
8140		Ironwood	24	
8141		Bittemut Hickory	10	
8142		Red Oak	22	
8143		Red Oak	14	
8144		Bittemut Hickory	6	
8145		Green and White Ash	16	
8146		Green and White Ash	23	
8147		Bittemut Hickory	6	
8148		Red Oak	20	
8149		Bittemut Hickory	8	
8150		Green and White Ash	11	
8151		Red Oak	22	
8152		Red Oak	12	
8153		Red Oak	18	
8154		Bur Oak	21	
8155		Bur Oak	22	
8156		Ironwood	10	
8157		Ironwood	7	
8158		Bur Oak	18	
8159		Sugar Maple	6	
8160		Ironwood	13	
8161		Basswood	7	
8162		Red Oak	16	
8163		Red Oak	18	
8164		Eastem Red Cedar	8	
8165		Red Oak	20	
8166		Ironwood	9	

ALLIANT

733 Marquette Avenue
Suite 700
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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

JOHN JOHNHOVD, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

108

SHEET 108 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\Plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
8167		Red Oak	19	
8168		Bittemut Hickory	6	
8169		Hackberry	8	
8170		Red Oak	13	
8171		Ironwood	16	
8172		Scotch Pine	16	
8173		Scotch Pine	16	
8174		Jack Pine	15	x
8175		Jack Pine	16	x
8176		Green and White Ash	12	x
8177		Jack Pine	13	x
8178		Jack Pine	15	x
8179		Jack Pine	13	x
8180		Jack Pine	7	x
8181		Jack Pine	14	x
8182		Black Cherry	12	x
8183		Black Cherry	9	x
8184		Green and White Ash	21	x
8185		Jack Pine	15	x
8186		Jack Pine	14	x
8187		Green and White Ash	7	x
8188		Eastern Red Cedar	7	x
8189		Eastern Red Cedar	4	x
8190		Eastern Red Cedar	4	x
8191		Eastern Red Cedar	8	x
8192		Bur Oak	13	x
8193		Green and White Ash	6	x
8194		Eastern Red Cedar	10	x
8195		Siberian Elm	8	x
8196		Eastern Red Cedar	4	x
8197		Eastern Red Cedar	11	x
8198		Black Cherry	6	x
8199		Red Oak	9	x
8200		Black Cherry	6	x
8201		Eastern Red Cedar	4	x
8202		Eastern Red Cedar	15	x
8203		Red Oak	6	x
8204		Black Cherry	10	x
8205		Red Oak	24	x
8206		Red Oak	20	x
8207		Red Oak	15	x
8208		Red Oak	15	x
8209		Red Oak	27	x
8210		Red Oak	12	x
8211		Red Oak	6	x
8212		Bur Oak	22	x
8213		Sugar Maple	9	x
8214		Bittemut Hickory	13	x
8215		Red Oak	16	x
8216		Hackberry	16	x
8217		Green and White Ash	12	x
8218		Green and White Ash	12	x
8219		Ironwood	6	x
8220		Green and White Ash	10	x
8221		Ironwood	6	x
8222		Green and White Ash	13	x
8223	bd 10% dead	Red Oak	20	x
8224	bd 10% dead	Red Oak	13	x
8225		Green and White Ash	7	x
8226		Green and White Ash	14	x
8227		Red Oak	16	x
8228	bd 10% dead	Red Oak	15	x
8229	bd 5% dead	Red Oak	18	x
8230		Ironwood	8	x
8231		Hackberry	7	x
8232		Bittemut Hickory	6	x
8233		Green and White Ash	13	x
8234		Green and White Ash	7	x
8235		Hackberry	15	x
8236		Green and White Ash	9	x
8237		Hackberry	7	x
8238		Green and White Ash	12	x
8239		Ironwood	8	x
8240		Ironwood	12	x
8241		Green and White Ash	11	x
8242		Green and White Ash	10	x
8243		Green and White Ash	8	x
8244		Ironwood	11	x
8245		Green and White Ash	10	x
8246		Bur Oak	27	x
8247		Bur Oak	13	x
8248		Ironwood	9	x
8249		Ironwood	6	x
8250		Ironwood	20	x
8251		Ironwood	12	x
8252		Bittemut Hickory	13	x
8253		Red Oak	21	x
8254		Green and White Ash	6	x
8255		Green and White Ash	6	x
8256		Ironwood	13	x
8257		Bittemut Hickory	7	x
8258		Ironwood	8	x
8259		Ironwood	8	x
8260		Bittemut Hickory	13	
8261		Green and White Ash	14	x
8262		Green and White Ash	16	
8263		Bur Oak	29	
8264		Bur Oak	30	
8265		Hackberry	24	
8266		Hackberry	14	
8267		Hackberry	12	
8268		Hackberry	13	
8269		Bur Oak	7	
8270		Black Cherry	7	
8271		Ironwood	9	
8272		Hackberry	6	
8273		Hackberry	10	
8274		Bittemut Hickory	16	
8275		Bur Oak	44	
8276		Hackberry	4	
8277		Green and White Ash	14	
8278		Ironwood	7	
8279		Hackberry	20	
8280		Green and White Ash	18	
8281		Hackberry	17	x
8282		Hackberry	14	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
8283		Green and White Ash	12	x
8284		Green and White Ash	10	x
8285		Green and White Ash	8	x
8286		Bur Oak	15	x
8287		Green and White Ash	14	x
8288		Green and White Ash	7	x
8289		Green and White Ash	7	x
8290		Ironwood	16	x
8291		Bur Oak	27	
8292		Red Oak	6	x
8293		Ironwood	8	x
8294		Green and White Ash	16	x
8295		Green and White Ash	11	x
8296		Hackberry	6	x
8297		Bittemut Hickory	6	x
8298		Green and White Ash	7	
8299		Green and White Ash	17	
8300		Green and White Ash	12	
8301		Bittemut Hickory	14	
8302		Hackberry	16	
8303		Bittemut Hickory	13	
8304		Hackberry	19	
8305		Red Oak	15	
8306		Hackberry	11	
8307		Ironwood	12	
8308		Green and White Ash	16	
8309		Bittemut Hickory	12	
8310		Eastern Red Cedar	6	
8311		Eastern Red Cedar	7	
8312		Green and White Ash	34	
8313		Green and White Ash	18	
8314		Red Oak	19	
8315		Eastern Red Cedar	9	
8316		Eastern Red Cedar	6	
8317		Eastern Red Cedar	7	
8318		Eastern Red Cedar	8	
8319		Eastern Red Cedar	6	
8320		Eastern Red Cedar	4	
8321		Eastern Red Cedar	7	
8322		Eastern Red Cedar	4	
8323		Eastern Red Cedar	7	
8324		Eastern Red Cedar	8	
8325		Eastern Red Cedar	14	
8326		Norway Spruce	12	
8327		Red Oak	22	
8328		Bittemut Hickory	17	
8329		Bittemut Hickory	13	
8330		Bur Oak	38	
8331		Hackberry	9	
8332		Eastern Red Cedar	18	
8333		Bur Oak	21	
8334		Eastern Red Cedar	12	
8335		Eastern Red Cedar	16	
8336		Eastern Red Cedar	12	
8337		Eastern Red Cedar	12	
8338		Eastern Red Cedar	10	
8339		Eastern Red Cedar	8	
8340		Eastern Red Cedar	9	
8341		Eastern Red Cedar	9	
8342		Eastern Red Cedar	4	
8343		Bur Oak	12	
8344		Bur Oak	20	
8345		Green and White Ash	22	
8346		Bur Oak	10	
8347		Eastern Red Cedar	10	
8348		Eastern Red Cedar	14	
8349		Eastern Red Cedar	17	
8350		Sugar Maple	22	
8351		Green and White Ash	19	
8352		Green and White Ash	20	
8353		Scotch Pine	12	
8354		Scotch Pine	14	
8355		Scotch Pine	12	
8356		Scotch Pine	13	
8357		Scotch Pine	12	
8358		Scotch Pine	7	
8359		Bur Oak	22	
8360		Eastern Red Cedar	8	
8361		Green and White Ash	12	
8362		Bur Oak	17	
8363		Colorado Spruce	6	
8364		Green and White Ash	8	
8365		Red Oak	13	
8366		Red Oak	13	
8367		Red Oak	15	
8368		Red Oak	18	
8369		Bittemut Hickory	6	
8370		Eastern Red Cedar	10	
8371		Ironwood	24	
8372		Bittemut Hickory	13	
8373		Scotch Pine	8	
8374		Norway Spruce	10	
8375		Scotch Pine	15	
8376		Red Oak	11	
8377		Eastern Red Cedar	6	
8378		Green and White Ash	20	
8379		Red Oak	15	
8380		Red Oak	36	
8381		Black Cherry	6	
8382		Norway Spruce	4	
8383		Black Cherry	6	
8384		American Elm	7	
8385		Red Oak	8	
8386		Red Oak	24	
8387		Bur Oak	30	
8388		Red Oak	7	
8389		Red Oak	8	
8390		Red Oak	7	
8391		Ironwood	8	
8392		Red Oak	22	
8393		Red Oak	16	
8394		Red Oak	22	
8395		Red Oak	23	
8396		Green and White Ash	8	
8397		Red Oak	10	
8398		Green and White Ash	8	

Tag ID	Notes	Species	SIZE (DBH)	Remove
8399		Green and White Ash	6	
8400		Bur Oak	14	
8401		Green and White Ash	10	
8402		Bittemut Hickory	7	
8403		Red Oak	12	
8404		Green and White Ash	6	
8405		Red Oak	17	
8406		Ironwood	6	
8407		Red Oak	19	
8408		Bittemut Hickory	12	
8409		Eastern Red Cedar	6	
8410		Eastern Red Cedar	9	
8411		Eastern Red Cedar	12	
8412		Bur Oak	8	
8413		Eastern Red Cedar	10	
8414		Eastern Red Cedar	17	
8415		Eastern Red Cedar	12	
8416		Eastern Red Cedar	19	
8417		Red Oak	17	
8418		Red Oak	13	
8419		Red Oak	14	
8420		Eastern Red Cedar	15	
8421		Eastern Red Cedar	6	
8422		Red Oak	16	
8423		Red Oak	10	
8424		Green and White Ash	6	
8425		Bittemut Hickory	6	
8426		Green and White Ash	9	
8427		Ironwood	25	
8428		Bittemut Hickory	13	
8429		Bittemut Hickory	18	
8430		Bittemut Hickory	12	
8431		Green and White Ash	12	
8432		Red Oak	17	
8433		Green and White Ash	14	
8434		Bur Oak	15	
8435		Eastern Red Cedar	12	
8436		Green and White Ash	8	
8437		Green and White Ash	15	
8438		Green and White Ash	15	
8439		Eastern Red Cedar	6	
8440		Eastern Red Cedar	4	
8441		Eastern Red Cedar	5	
8442		Bur Oak	27	
8443		Bur Oak	7	
8444		Eastern Red Cedar	5	
8445		Bur Oak	20	
8446		Bur Oak	14	
8447		Ironwood	22	
8448		Eastern Red Cedar	25	
8449		Eastern Red Cedar	5	
8450		Eastern Red Cedar	4	
8451		Eastern Red Cedar	5	
8452		Red Oak	12	
8453		Green and White Ash	7	
8454		Red Oak	12	
8455		American Elm	8	
8456		Red Oak	6	
8457		Bur Oak	20	
8458		Eastern Red Cedar	8	
8459		Bittemut Hickory	40	
8460		Eastern Red Cedar	5	
8461		Bittemut Hickory	6	
8462		Red Oak	14	
8463		Green and White Ash	13	
8464		Bittemut Hickory	11	
8465		Ironwood	6	
8466		Bur Oak	12	
8467		Ironwood	6	
8468		Ironwood	7	
8469		Bur Oak	13	
8471		Bittemut Hickory	6	
8472		Eastern Red Cedar	4	
8473		Eastern Red Cedar	7	
8474		Eastern Red Cedar	7	
8475		Green and White Ash	6	
8476		Red Oak	7	
8477		Green and White Ash	13	
8478		Eastern Red Cedar	4	
8479		Eastern Red Cedar	5	
8480		Eastern Red Cedar	6	
8481		Red Oak	12	
8482		Green and White Ash	15	
8483		Red Oak	11	
8484		Red Oak	10	
8485		Bur Oak	29	
8486		Eastern Red Cedar	4	
8487		Eastern Red Cedar	5	
8488		Green and White Ash	8	
8489		Red Oak	13	
8490		Bittemut Hickory	10	
8491		Green and White Ash	16	
8492		Eastern Red Cedar	18	
8493		Green and White Ash	8	
8494		Red Oak	25	
8495		Red Oak	25	
8496		Bittemut Hickory	6	
8497		Bur Oak	26	
8498		Green and White Ash	24	
8499		Bittemut Hickory	21	
8500		Norway Spruce	11	
8501		Unknown Coniferous Tree (pine	10	
8502		Unknown Coniferous Tree (pine	9	
8503		Bittemut Hickory	18	
8504		Norway Spruce	6	
8505		Bittemut Hickory	11	
8506		Black Cherry	7	
8507		Eastern Red Cedar	10	
8508		Black Cherry	6	
8509		Norway Spruce	11	
8510		Norway Spruce	10	
8511		White Pine	16	
8512		White Pine	11	
8513		Green and White Ash	17	
8514		Eastern Red Cedar	7	
8515		Bittemut Hickory	7	

Tag ID	Notes	Species	SIZE (DBH)	Remove
8516		Bittemut Hickory	18	
8517		Bur Oak	16	
8518		Bittemut Hickory	14	
8519		Bittemut Hickory	11	
8520		Bur Oak	16	
8521		Bittemut Hickory	12	
8522		Eastern Red Cedar	8	
8523		Bittemut Hickory	16	
8524		Green and White Ash	11	
8525		Red Oak	21	
8526		Bittemut Hickory	6	
8527		Green and White Ash	13	
8528		Bur Oak	12	
8529		Bittemut Hickory	7	
8530		Bittemut Hickory	8	
8531		Bittemut Hickory	6	
8532		Bittemut Hickory	6	
8533		Eastern Red Cedar	8	
8534		Red Oak	18	
8535		Hackberry	7	
8536		Eastern Red Cedar	7	
8537		Bittemut Hickory	12	
8538		Hackberry	6	
8539		Bittemut Hickory	9	
8540		Red Oak	22	
8541		Red Oak	7	
8542		Bittemut Hickory	12	
8543		Bittemut Hickory	10	
8544		Bur Oak	19	
8545		Bur Oak	13	
8546		Norway Spruce	8	
8547		Norway Spruce	6	
8548		Red Oak	12	
8549		Green and White Ash	9	
8550		Hackberry	11	
8551		Green and White Ash	13	
8552		Red Oak	20	
8553		Hackberry	10	
8554		Bur Oak	14	
8555		Bittemut Hickory	6	
8556		Green and White Ash	12	
8557		Red Oak	8	
8558		Bittemut Hickory	7	
8559		Green and White Ash	20	
8560		Bittemut Hickory	14	
8561		Bittemut Hickory	14	
8562		Eastern Red Cedar	25	
8563		Bittemut Hickory	17	
8564		Eastern Red Cedar	11	
8565		Bur Oak	18	
8566		Eastern Red Cedar	4	
8567		Eastern Red Cedar	7	
8568		Eastern Red Cedar	6	
8569		Green and White Ash	9	
8570		Green and White Ash	12	
8571		Bur Oak	10	
8572		Red Oak	7	
8573		Red Oak	6	
8574		Bur Oak	9	
8575		Eastern Red Cedar	4	
8576		Eastern Red Cedar	4	
8577		Eastern Red Cedar	6	
8578		Eastern Red Cedar	5	
8579		Bur Oak	10	
8580		Eastern Red Cedar	6	
8581		Eastern Red Cedar	8	
8582		Eastern Red Cedar	4	
8583		Eastern Red Cedar	5	
8584		Bur Oak	12	
8585		Eastern Red Cedar	8	
8586		Eastern Red Cedar	5	
8587		Eastern Red Cedar	4	
8588		Eastern Red Cedar	4	
8589		Eastern Red Cedar	9	
8590		Green and White Ash	7	
8591		Green and White Ash	6	
8592		Eastern Red Cedar	7	
8593		Red Oak	6	
8594		Eastern Red Cedar	6	
8595		Eastern Red Cedar	8	
8596		Eastern Red Cedar	6	
8597		Red Oak	9	
8598		Eastern Red Cedar	9	
8599		Bittemut Hickory	8	
8600		Red Oak	6	
8601		Eastern Red Cedar	4	
8602		Red Oak	23	
8603		Red Oak	26	
8604		Eastern Red Cedar	9	
8605		Bur Oak	20	
8606		Eastern Red Cedar	6	
8607		Eastern Red Cedar	8	
8608		Eastern Red Cedar	9	
8609		Eastern Red Cedar	10	
8610		Eastern Red Cedar	9	
8611		Bittemut Hickory	13	
8612		Eastern Red Cedar	11	
8613		Eastern Red Cedar	8	
8614		Eastern Red Cedar	6	
8615		Eastern Red Cedar	9	
8616		Ironwood	6	
8617		Bur Oak	13	
8618		Ironwood	14	
8619		Red Oak	22	
8620		Green and White Ash	9	
8621		Green and White Ash	8	
8622		Eastern Red Cedar	13	
8623		Eastern Red Cedar	6	
8624		Red Oak	10	
8625		Red Oak	13	
8626		Red Oak	24	
8627		Eastern Red Cedar	8	
8628		Eastern Red Cedar	5	
8629		Eastern Red Cedar	5	
8630		Eastern Red Cedar	7	
8631		Eastern Red Cedar	5	

Tag ID	Notes	Species	SIZE (DBH)	Remove
8632		Eastern Red Cedar	13	
8633		Bittemut Hickory	10	
8634		Bittemut Hickory	6	
8635		Red Oak	16	
8636		Red Oak	16	
8637		Bur Oak	14	
8638		Green and White Ash	7	
8639		Red Oak	6	
8640		Green and White Ash	6	
8641		Eastern Red Cedar	12	
8642		Eastern Red Cedar	10	
8643		Bittemut Hickory	9	
8644		Bittemut Hickory	7	
8645		Bur Oak	25	
8646		Green and White Ash	11	
8647		Bur Oak	18	
8648		Bittemut Hickory	11	
8649		Green and White Ash	17	
8650		Green and White Ash	8	
8651		Bittemut Hickory	37	
8652		Hackberry	7	
8653		Green and White Ash	17	
8654		Bittemut Hickory	9	
8655		Green and White Ash	31	
8656		Bittemut Hickory	11	
8657		Green and White Ash	11	
8658		Bur Oak	16	
8659		Bittemut Hickory	10	
8660		Green and White Ash	15	
8661		Bittemut Hickory	13	
8662		Bittemut Hickory	15	
8663		Bittemut Hickory	7	
8664		Bittemut Hickory	9	
8665		Red Oak	12	
8666		Bittemut Hickory	7	
8667		Red Oak	21	
8668		Green and White Ash	11	
8669		Green and White Ash	11	
8670		Eastern Red Cedar	11	
8671		Green and White Ash	8	
8672		American Elm	12	
8673		American Elm	6	
8674		Eastern Red Cedar	9	
8675		Eastern Red Cedar	11	
8676		Eastern Red Cedar	11	
8677		Bur Oak	15	
8678		Bur Oak	19	
8679		Red Oak	18	
8680		Eastern Red Cedar	9	
8681		Eastern Red Cedar	11	
8682		Eastern Red Cedar	10	
8683		Eastern Red Cedar	12	
8684		Eastern Red Cedar	6	
8685		Eastern Red Cedar	12	
8686		Norway Spruce	4	
8687		Norway Spruce	5	
8688		Red Oak	19	
8689		Bittemut Hickory	15	
8690		Bittemut Hickory	11	
8691		Green and White Ash	13	
8692		Norway Spruce	4	
8693		Ironwood	24	
8694		Bittemut Hickory	11	
8695		Eastern Red Cedar	4	
8696		Eastern Red Cedar	7	
8697		Hackberry	9	
8698		Bur Oak	55	
8699		Red Oak	38	
8707		Red Oak	24	
8708		Bittemut Hickory	19	
8709		Green and White Ash	14	
8710		Unknown Deciduous Tree (Mt. A	9	
8711		Silver Maple	13	
8712		Paper, Yellow, and River Birch	37	
8713		Paper, Yellow, and River Birch	40	
8714		Siberian Elm	6	
8715		Siberian Elm	6	
8716		Siberian Elm	8	
8717		Siberian Elm	14	
8718		Siberian Elm	7	
8719		Siberian Elm	21	
8720		Siberian Elm	7	
8721		Bur Oak	56	
8722		Bur Oak	6	
8723		Red Oak	18	
8724		Jack Pine	17	x
8725		Jack Pine	23	x
8726		Jack Pine	18	x
8727		Red Oak	10	x
8728		Red Oak	13	x
8729		Red Oak	12	x
8730		Red Oak	7	x
8731		Red Oak	20	x
8732		Red Oak	12	x
8733		Red Oak	7	x
8734		Red Oak	15	x
8735		Red Oak	7	x
8736		Red Oak	7	x
8737		Red Oak	24	x
8738	pd 10% dead	Black Cherry	6	x
8739		Black Cherry	7	x
8740		Eastern Red Cedar	33	x
8741		Eastern Red Cedar	13	x
8742		Eastern Red Cedar	11	x
8743		Eastern Red Cedar	5	x
8744		Siberian Elm	7	x
8745		Siberian Elm	6	x
8746		Eastern Red Cedar	20	x
8747		Eastern Red Cedar	15	x
8748		Eastern Red Cedar	10	x
8749		Eastern Red Cedar	16	x
8750		Eastern Red Cedar	26	x
8751		Eastern Red Cedar	14	x
8752		Catalpa	14	x
8753		Catalpa	9	x
8754		Eastern Red Cedar	13	x

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the state of MINNESOTA

PRELIMINARY NOT FOR CONSTRUCTION

JOHN GRONHOVD, PLA, ASLA

Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR

DRAWN: TAS

PROJECT NO: 223-0166

109

SHEET 109 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

Tag ID	Notes	Species	SIZE (DBH)	Remove
8755		Eastern Red Cedar	15	x
8756		Eastern Red Cedar	9	x
8757		Eastern Red Cedar	27	x
8758		Siberian Elm	6	x
8759		Eastern Red Cedar	15	x
8760		Eastern Red Cedar	7	x
8761		Eastern Red Cedar	13	x
8762		Eastern Red Cedar	16	x
8763		Eastern Red Cedar	16	x
8764		Eastern Red Cedar	4	x
8765		Eastern Red Cedar	32	x
8766		Eastern Red Cedar	13	x
8767		Siberian Elm	13	x
8768		Eastern Red Cedar	6	x
8769		Eastern Red Cedar	17	x
8770		Eastern Red Cedar	12	x
8771		Eastern Red Cedar	14	x
8772		Eastern Red Cedar	12	x
8773		Eastern Red Cedar	15	x
8774		Eastern Red Cedar	10	x
8775		Eastern Red Cedar	14	x
8776		Eastern Red Cedar	11	x
8777		Eastern Red Cedar	10	x
8778		Eastern Red Cedar	14	x
8779		Eastern Red Cedar	10	x
8780		Eastern Red Cedar	17	x
8781		Eastern Red Cedar	10	x
8782		Green and White Ash	6	x
8783		Eastern Red Cedar	7	x
8784		Eastern Red Cedar	28	x
8785		Eastern Red Cedar	15	x
8786		Eastern Red Cedar	4	x
8787		Eastern Red Cedar	4	x
8788		Eastern Red Cedar	9	x
8789		Eastern Red Cedar	12	x
8790		Eastern Red Cedar	12	x
8791		Eastern Red Cedar	14	x
8792		Eastern Red Cedar	12	x
8793		Eastern Red Cedar	8	x
8794		Eastern Red Cedar	12	x
8795		Eastern Red Cedar	10	x
8796		Eastern Red Cedar	5	x
8797		Eastern Red Cedar	4	x
8798		Eastern Red Cedar	11	x
8799		Eastern Red Cedar	14	x
8800		Eastern Red Cedar	23	x
8801		Eastern Red Cedar	13	x
8802		Eastern Red Cedar	26	x
8803		Eastern Red Cedar	15	x
8804		Eastern Red Cedar	12	x
8805		Eastern Red Cedar	16	x
8806		Eastern Red Cedar	10	x
8807		Eastern Red Cedar	33	x
8808		Eastern Red Cedar	13	x
8809		Eastern Red Cedar	12	x
8810		Eastern Red Cedar	13	x
8811		Eastern Red Cedar	13	x
8812		Eastern Red Cedar	10	x
8813		Eastern Red Cedar	9	x
8814		Eastern Red Cedar	10	x
8815		Eastern Red Cedar	20	x
8816		Eastern Red Cedar	17	x
8817		Eastern Red Cedar	10	x
8818		Eastern Red Cedar	13	x
8819		Eastern Red Cedar	12	x
8820		Boxelder	8	x
8821		Eastern Red Cedar	13	x
8822		Boxelder	15	x
8823		Eastern Red Cedar	7	x
8824		Eastern Red Cedar	7	x
8825		Boxelder	11	x
8826		Eastern Red Cedar	12	x
8827		Eastern Red Cedar	12	x
8828		Boxelder	19	x
8829		Eastern Red Cedar	5	x
8830		Boxelder	13	x
8831		Boxelder	8	x
8832		Boxelder	9	x
8833		Boxelder	12	x
8834		Boxelder	13	x
8835		Boxelder	15	x
8836		Boxelder	33	x
8837		Eastern Red Cedar	12	x
8838		Eastern Red Cedar	9	x
8839		Boxelder	12	x
8840		Boxelder	11	x
8841		Boxelder	12	x
8842		Boxelder	9	x
8843		Boxelder	14	x
8844		Cottonwood	24	x
8845		Eastern Red Cedar	9	x
8846		Eastern Red Cedar	10	x
8847		Eastern Red Cedar	11	x
8848		Eastern Red Cedar	7	x
8849		Eastern Red Cedar	9	x
8850		Eastern Red Cedar	12	x
8851		Eastern Red Cedar	10	x
8852		Eastern Red Cedar	6	x
8853		Eastern Red Cedar	8	x
8854		Eastern Red Cedar	8	x
8855		Eastern Red Cedar	9	x
8856		Eastern Red Cedar	8	x
8857		Eastern Red Cedar	8	x
8858		Eastern Red Cedar	6	x
8859		Eastern Red Cedar	8	x
8860		Eastern Red Cedar	11	x
8861		Eastern Red Cedar	11	x
8862		Eastern Red Cedar	13	x
8863		Eastern Red Cedar	20	x
8864		Boxelder	8	x
8865		Eastern Red Cedar	6	x
8866		Boxelder	8	x
8867		Eastern Red Cedar	31	x
8868		Eastern Red Cedar	9	x
8869		Eastern Red Cedar	9	x
8870		Eastern Red Cedar	10	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
8871		Eastern Red Cedar	6	x
8872		Green and White Ash	12	x
8873		Boxelder	12	x
8874		Boxelder	14	x
8875		Eastern Red Cedar	4	x
8876		Eastern Red Cedar	7	x
8877		Green and White Ash	7	x
8878		Boxelder	11	x
8879		Eastern Red Cedar	15	x
8880		Boxelder	8	x
8881		Boxelder	8	x
8882		Boxelder	9	x
8883		Eastern Red Cedar	10	x
8884		Eastern Red Cedar	9	x
8885		Black Cherry	14	x
8886		Black Cherry	14	x
8887		Green and White Ash	6	x
8888		Eastern Red Cedar	10	x
8889		Eastern Red Cedar	12	x
8890		Eastern Red Cedar	9	x
8891		Eastern Red Cedar	10	x
8892		Eastern Red Cedar	8	x
8893		Eastern Red Cedar	8	x
8894		Eastern Red Cedar	6	x
8895		Eastern Red Cedar	7	x
8896		Siberian Elm	13	x
8897		Siberian Elm	19	x
8898		Siberian Elm	23	x
8899		Cottonwood	14	x
8900		Siberian Elm	18	x
8901		Green and White Ash	14	x
8902		Siberian Elm	8	x
8903		Cottonwood	24	x
8904		Siberian Elm	7	x
8905		Boxelder	11	x
8906		Siberian Elm	9	x
8907		Black Cherry	6	x
8908		Green and White Ash	8	x
8909		Boxelder	11	x
8910		Boxelder	8	x
8911		Boxelder	20	x
8912		Siberian Elm	15	x
8913		Siberian Elm	14	x
8914		Siberian Elm	22	
8915		Siberian Elm	10	x
8916		Siberian Elm	39	x
8917		Eastern Red Cedar	4	x
8918		Eastern Red Cedar	4	x
8919		Eastern Red Cedar	4	
8920		Eastern Red Cedar	4	
8921		Siberian Elm	8	x
8922		Eastern Red Cedar	9	x
8923		Eastern Red Cedar	11	x
8924		Siberian Elm	20	x
8925		Siberian Elm	6	x
8926		Siberian Elm	6	x
8927		Siberian Elm	6	x
8928		Siberian Elm	7	x
8929		Eastern Red Cedar	4	x
8930		Eastern Red Cedar	7	x
8931		Siberian Elm	13	x
8932		Siberian Elm	8	x
8933		Siberian Elm	18	x
8934		Boxelder	15	x
8935		Boxelder	17	x
8936		Boxelder	9	x
8937		Boxelder	47	x
8938		Siberian Elm	6	x
8939		Siberian Elm	7	x
8940		Eastern Red Cedar	17	x
8941		Boxelder	11	x
8942		Boxelder	8	x
8943		Boxelder	8	x
8944		Eastern Red Cedar	10	x
8945		Boxelder	26	x
8946		Siberian Elm	16	x
8947		Eastern Red Cedar	12	
8948		Green and White Ash	6	x
8949		Eastern Red Cedar	10	x
8950		Eastern Red Cedar	15	x
8951		Eastern Red Cedar	15	x
8952		Eastern Red Cedar	15	x
8953		Black Cherry	6	
8954		Boxelder	14	
8955		Boxelder	23	
8956		Boxelder	8	
8957		Boxelder	15	x
8958		Boxelder	10	
8959		Boxelder	9	x
8960		Boxelder	9	x
8961		Eastern Red Cedar	8	x
8962		Eastern Red Cedar	11	x
8963		Eastern Red Cedar	6	x
8964		Eastern Red Cedar	6	x
8965		Eastern Red Cedar	4	x
8966		Eastern Red Cedar	19	x
8967		Eastern Red Cedar	5	x
8968		Eastern Red Cedar	9	x
8969		Boxelder	10	x
8970		Boxelder	13	x
8971		Boxelder	18	x
8972		Boxelder	13	x
8973		Boxelder	13	x
8974		Boxelder	14	x
8975	bd 10% dead	Siberian Elm	36	x
8976		Siberian Elm	10	x
8977		Green and White Ash	8	x
8978		Siberian Elm	7	x
8979		Eastern Red Cedar	14	x
8980		Siberian Elm	9	x
8981		Siberian Elm	6	x
8982		Siberian Elm	6	x
8983	bd 10% dead	Siberian Elm	8	x
8984		Siberian Elm	6	x
8985		Eastern Red Cedar	13	x
8986		Boxelder	8	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
8987		Eastern Red Cedar	13	x
8988		Eastern Red Cedar	5	x
8989		Eastern Red Cedar	11	x
8990		Eastern Red Cedar	14	x
8991		Eastern Red Cedar	12	x
8992		Eastern Red Cedar	12	x
8993		Green and White Ash	6	x
8994		Boxelder	10	x
8995		Eastern Red Cedar	9	x
8996		Eastern Red Cedar	14	x
8997		Eastern Red Cedar	12	x
8998		Eastern Red Cedar	24	x
8999		Boxelder	11	x
9051		Eastern Red Cedar	42	x
9052		Colorado Spruce	15	x
9053		Colorado Spruce	14	x
9054		Jack Pine	16	x
9055		Colorado Spruce	14	x
9056		Colorado Spruce	15	x
9057		Colorado Spruce	14	x
9058		Eastern Red Cedar	15	x
9059		Silver Maple	76	x
9060		Eastern Red Cedar	29	x
9061		Eastern Red Cedar	12	x
9062		Eastern Red Cedar	8	x
9063		Eastern Red Cedar	30	x
9064		Eastern Red Cedar	17	x
9065		Eastern Red Cedar	22	x
9066		Eastern Red Cedar	21	x
9067		Eastern Red Cedar	10	x
9068		Eastern Red Cedar	9	x
9069		Eastern Red Cedar	17	x
9070		Eastern Red Cedar	13	x
9071		Eastern Red Cedar	13	x
9072		Eastern Red Cedar	8	x
9073		Eastern Red Cedar	7	x
9074		Eastern Red Cedar	8	x
9075		Eastern Red Cedar	46	x
9076		Eastern Red Cedar	9	x
9077		Red Oak	15	x
9078		Eastern Red Cedar	8	x
9079		Eastern Red Cedar	10	x
9080		Eastern Red Cedar	13	x
9081		Eastern Red Cedar	17	x
9082		Eastern Red Cedar	5	x
9083		Eastern Red Cedar	6	x
9084		Eastern Red Cedar	61	x
9085		Eastern Red Cedar	33	x
9086		Boxelder	30	x
9087		Eastern Red Cedar	8	x
9088		Eastern Red Cedar	6	x
9089		Eastern Red Cedar	5	x
9090		Boxelder	9	x
9091		Eastern Red Cedar	7	x
9092		Eastern Red Cedar	30	x
9093		Siberian Elm	19	x
9094		Siberian Elm	48	x
9095		Eastern Red Cedar	10	x
9096		Eastern Red Cedar	7	x
9097		Boxelder	77	x
9098		Eastern Red Cedar	10	x
9099		Jack Pine	12	x
9100		Eastern Red Cedar	14	x
9101		Eastern Red Cedar	14	x
9102		Eastern Red Cedar	18	x
9103		Jack Pine	22	x
9104		Jack Pine	16	x
9105		Jack Pine	10	x
9106		Jack Pine	9	x
9107		Jack Pine	9	x
9108		Jack Pine	13	x
9109		Jack Pine	14	x
9110		Red Oak	9	x
9111		Eastern Red Cedar	13	x
9112		Jack Pine	7	x
9113		Jack Pine	14	x
9114		Eastern Red Cedar	22	x
9115		Eastern Red Cedar	13	x
9116		Jack Pine	10	x
9117		Jack Pine	17	x
9118		Jack Pine	12	x
9119		Jack Pine	7	x
9120		Eastern Red Cedar	7	x
9121		Eastern Red Cedar	14	x
9122		Eastern Red Cedar	14	x
9123		Eastern Red Cedar	7	x
9124		Eastern Red Cedar	7	x
9125		Eastern Red Cedar	7	x
9126		Eastern Red Cedar	7	
9127		Eastern Red Cedar	10	x
9128		Eastern Red Cedar	12	x
9129		Red Oak	18	x
9130		Eastern Red Cedar	9	x
9131		Eastern Red Cedar	6	x
9132		Eastern Red Cedar	4	x
9133		Eastern Red Cedar	5	x
9134		Jack Pine	12	x
9135		Eastern Red Cedar	8	x
9136		Eastern Red Cedar	10	x
9137		Eastern Red Cedar	11	x
9138		Aspen	12	x
9139		Boxelder	8	x
9140		Boxelder	12	x
9141		Aspen	11	x
9142		Aspen	9	x
9143		Aspen	12	x
9144		Aspen	17	x
9145		Green and White Ash	9	x
9146		Green and White Ash	7	x
9147		Black Cherry	12	x
9148		Boxelder	8	x
9149		Aspen	12	x
9150		Aspen	13	x
9151		Boxelder	12	x
9152		Boxelder	18	x
9153		Boxelder	14	x

Tag ID	Notes	Species	SIZE (DBH)	Remove
9154		Black Cherry	6	x
9155		Boxelder	26	x
9156		Aspen	8	x
9157		Aspen	13	x
9158		Boxelder	13	x
9159		Aspen	11	x
9160		Aspen	8	x
9161		Aspen	12	x
9162		Aspen	12	x
9163		Aspen	11	x
9164		Green and White Ash	8	x
9165		Black Cherry	6	x
9166		Green and White Ash	7	x
9167		Green and White Ash	16	x
9168		Black Cherry	17	x
9169		Aspen	12	x
9170		Aspen	11	x
9171		Black Cherry	12	x
9172		Green and White Ash	18	x
9173		American Elm	7	x
9174		Aspen	10	x
9175		Green and White Ash	12	x
9176		Green and White Ash	7	x
9177		Aspen	13	x
9178		Aspen	9	x
9179		Green and White Ash	11	x
9180		Boxelder	22	x
9181		Aspen	8	x
9182		Red Oak	10	x
9183		Green and White Ash	10	x
9184		Green and White Ash	8	x
9185		Black Cherry	10	x
9186		Black Cherry	8	x
9187		Green and White Ash	14	x
9188		Black Cherry	8	x
9189		Aspen	12	x
9190		Green and White Ash	13	x
9191		Green and White Ash	10	x
9192		Black Cherry	7	x
9193		Boxelder	11	x
9194		Green and White Ash	12	x
9196		Black Cherry	7	x
9197		Black Cherry	9	x
9198		Black Cherry	11	x
9199		Black Cherry	10	x
9200		Black Cherry	11	x
9201		Black Cherry	9	x
9202		Black Cherry	10	x
9203		Boxelder	11	x
9204		Aspen	11	x
9205		Black Cherry	8	x
9206		Boxelder	20	x
9207		Aspen	11	x
9208		Black Cherry	6	x
9209		Green and White Ash	8	x
9210		Aspen	10	x
9211		Aspen	9	x
9212		Green and White Ash	12	x
9213		Boxelder	9	x
9214		Green and White Ash	12	x
9215		Red Oak	11	x
9218		Boxelder	20	x
9219		Black Cherry	8	x
9227		Black Cherry	9	x
9228		Black Cherry	7	x
9229		Aspen	8	x
9230		Aspen	9	x
9231		Red Oak	7	x
9232		Red Oak	7	x
9233		Green and White Ash	11	x
9234		Green and White Ash	9	x
9235		Green and White Ash	6	x
9236		Aspen	12	x
9237		Aspen	10	x
9238		Red Oak	7	x
9239		Red Oak	8	x
9240		Aspen	8	x
9241		Aspen	8	x
9242		Bur Oak	12	x
9243		Bur Oak	11	x
9244		Bur Oak	9	x
9245		Bur Oak	11	x
9246		Bur Oak	6	x
9247		Bur Oak	6	x
9248		Bur Oak	19	x
9249		Bur Oak	10	x
9250		Red Oak	35	x
9251		Bur Oak	7	x
9252		Bur Oak	11	x
9253		Red Oak	44	x
9254		Red Oak	18	x
9255		Red Oak	70	x
9256		Red Oak	28	x
9257		Eastern Red Cedar	10	x
9258		Eastern Red Cedar	13	x
9259		Red Oak	22	x
9260		Bur Oak	26	x
9261		Red Oak	20	x
9262		Red Oak	20	x
9263		Red Oak	23	x
9264		Bur Oak	6	x
9265		Bur Oak	12	x
9266		Boxelder	22	x
9267		Hackberry	15	x
9268		Red Oak	26	x

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MISSISSIPPI LANDING

COTTAGE GROVE, MINNESOTA

PRELIMINARY PLAT AND PUD PLAN

TREE INVENTORY

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

JOHN GRONHOVD, PLA, ASLA

Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: TAS
PROJECT NO: 223-0166

110

SHEET 110 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166tree-inv.dwg Dec 20, 2023 - 4:34pm

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Oakdale, MN 55128

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Bolton-Menk.com

MEMORANDUM

Date: 01/17/2024

To: Amanda Meyer, PE

From: Mike Boex, PE

Subject: Mississippi Landing Plan Review
City of Cottage Grove, MN
Project No.: 0N1.132213

This memo summarizes the review of both grading documents and street & utility documents submitted by Alliant, dated 12/20/23 (received 12/22/23). We recognize some of the comments are related to final design and not necessarily a preliminary submittal, however we believe it's prudent to provide those comments prior to final plat submittal.

Sheet 1:

1. Final plans should add a note on the title sheet and other applicable sheets stating that the City of Cottage Grove's Standard Specifications for Street and Utility Construction shall govern for all improvements on the project.
    a. The city specification and details plates will be updated in early 2024 and will be located here: https://www.cottagegrovemn.gov/251/City-Standards
2. Please identify the vertical datum for the project on the title sheet. NAD 83, listed on the title sheet, is a horizontal datum and not a vertical datum.

Sheet 3:

3. As final plans are developed, additional removal items should be identified, for example:
    a. Modifications to the existing fence at 6500 103rd Street, tree impacts due to watermain installation, tree removal due to realignment of 103rd Street, etc.
4. What appears to be an existing driveway easement south of 103rd Street does not appear on the ALTA survey, please confirm that it will be vacated if present.
5. Add a note to provide well sealing records to the City once completed.

Sheet 4:

6. Some electrical boxes are noted for removal on the property. Add a note to the removal sheets on the final plans that all existing features such as electrical lines shall be removed from proposed right-of-way or public property, no abandonment will be allowed.

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Sheet 9:

7. As depicted elsewhere in this plan, it is anticipated that some rough grading will occur on Outlot R (park area) by the developer. Therefore, all existing hardscape items like trail and parking lot should be removed in its entirety as a result of the proposed grading.
    a. Trails that are to remain outside of the proposed plat, should be clearly identifiable on other sheets so new and existing trail can be seen in proper context together. Please confirm locations of existing trail have been field verified and are correctly depicted on the plans.
8. Various existing retaining walls and some stairs are noted for removal in areas not designated for improvements. Ensure the removal of wall or stairs leaves existing grades in a way such that stabilization and erosion is not an issue in this area. These areas should be noted for erosion control and restoration on subsequent sheets. Other disturbed areas should be stabilized as well.

Sheet 11:

9. Easement widths will be confirmed when plan and profiles are provided for the proposed utilities. Generally, a minimum easement width should be twice the pipe depth centered over the pipe, or 10' (min.) on each side of the pipe, whichever is greater.
    a. For example, the easement for the 18" watermain along Outlots A and B, as depicted on sheet 61, should be 20-ft minimum.
10. Please review the existing Settlers Bluff and Mississippi Landing plats east of the railroad and depict both right-of-way and all drainage and utility easements clearly; it appears some linework is missing.
11. Open Space sign locations were provided by the Parks Department and are attached to this memo. On final plans, depict these signs on a separate signage plan for the entire project.

Sheet 12:

12. In the rear yards of Block 1, clearly label the width of the proposed drainage and utility easement.

Sheet 15:

13. Outlot M: Please provide the 90-ft right-of-way on Grey Cloud Trail like the rest of the project.

Sheet 22:

14. Outlots: for clarity, identify which are HOA and which are city outlots:
    a. A, B: City
    b. C: HOA
    b. D: City
    c. E, F: HOA
    d. G: City
    e. H: The area west of the trail should be a separate outlot owned by the HOA, the remainder to the east will be city

f. I: City

g. J, K, L, N, O, P: HOA

h. M: HOA or others (not public)

i. Q: City

j. R: City

15. Sidewalk locations:

    a. Please place the sidewalk on the opposite side of Road C (generally north and west)

        i. Stop Road C sidewalk at Road D, do not place on the cul-de-sac portion.

    b. Please place the sidewalk on the opposite side of Road D (south side). This will require the driveway to be flipped on Lot 6 Block 13.

    c. Please place the sidewalk on the opposite side of Road H (generally south and west)

        i. Sidewalk along the Road H Cul-de-sac should be extended to connect to the proposed trail.

    d. Remove the proposed sidewalk on the Road K cul-de-sac.

Sheet 23:

16. Road A with median:

    a. Please provide 20-ft face to face on each side of the median.

17. Sections of Grey Cloud Trail and 103rd Street indicate B624 curb and gutter on the right side of the section. On final plans, please identify on the sections where curb and gutter is proposed (with station ranges) so it is clear what the typical section is at various locations.

18. As previously discussed, no bedrock will be allowed within 1-ft of subgrade (bottom of class 5). Please note on the plans that in areas of bedrock, a 1-ft minimum sand section over bedrock will need to be placed.

19. In the submitted comment response memo, it was stated that a 5-ft minimum horizontal distance at a 6H:1V maximum slope will be provided immediately adjacent to a pedestrian facility if adjacent slopes are steeper than 4H:1V. Please detail this out or identify where this is noted.

20. Confirm the bridge clearance sign height of 12’-6”. The existing sign on 103rd Street depicts 10’-4”.

Sheet 24:

21. Sections of realigned Grey Cloud Trail (Approx. Sta. 5-6, 30-31) indicate B624 curb and gutter in various locations. Explain why curb was placed in the various areas.

    a. During final design, evaluate the slopes off the edge of proposed Grey Cloud Trail near station 30+00 and the need for curb and guardrail. It also appears there are various types of existing curb and gutter in this area; please review and identify existing curb type so it can be matched or an appropriate transition be made.

i. B624 appears on these plans, there is B412 by the existing guardrail, and surmountable (perhaps D412) on the east side of Grey Cloud Trail near station 31.

ii. Removal limits on Sheet 3 don't match the proposed curb on Sheet 24.

22. It appears the shoulder is depicted differently on the section of Grey Cloud Trail northwest of 103rd Street vs the other rural sections. Please construct similar to 103rd Street. The cross sections on Sheet 23 do not depict a difference.
23. Due to existing trucking patterns, change the southwest radius on 103rd/Grey Cloud Trail to 40-ft min.
24. Road A: Construct concrete curb and gutter to the end rads at 103rd Street.
25. Road C: Construct D428 curb in all locations (no B618 except at typical radius locations).
26. Curb under the railroad bridge shall be 4" curb (B424).
    a. Extend the curb on the south side of the road and west of the railroad 90-ft from the bridge, approximately to station 21+00.
27. Final plans shall include intersection details to clarify drainage patterns and grades for all street intersections (e.g. grades around radii, where crown of street will be carried through or warped, etc.). The need for valley gutters will be reviewed once intersection details and drainage areas are provided, but typically valley gutters are placed when longitudinal grades are less than 2%.
    a. For example, a valley gutter should be depicted across Road B at the intersection with Road A, due to the proposed longitudinal grade of 0.75%. Please check all other intersections. City detail STR-16 should be referenced in the plans.
28. Signs:
    a. Mississippi River Trail (MRT) signs should be updated for the 103rd Street realignment:
        i. Eastbound Grey Cloud Trail approaching 103rd: Add MRT sign with left arrow
        ii. Westbound 103rd Street approaching Grey Cloud Trail: Add MRT sign with right arrow
        iii. Salvage and reinstall the adopt a road and MRT sign at approximately station 23+75, on the south side of 103rd Street.
            1. An additional MRT sign should be placed on Grey Cloud Trail near station 1+00 for westbound traffic.
    b. Directional lane signs:
        i. Northbound Grey Cloud Trail approaching Road A: Left and Thru/Right placed at approx. 27+35
        ii. Southbound 103rd Street approaching Road A: Left and Thru/Right placed at approx. 22+70
    c. No Parking:
        i. Add no parking signs on 103rd and Grey Cloud Trail, and into development on Road A to Road B. Space every 200-lf.

d. Median on Road A: Keep right signs will be needed on both sides of the median with an R4-7C (24x30) & OM1-2 (18x18) below.

e. Bridge Height: a warning sign indicating the bridge height with an "ahead" sign below should be provided for eastbound traffic near station 23+75, matching the existing signage for westbound traffic.

f. Due to the reverse curve on Grey Cloud Trail approaching 103rd Street, a stop ahead warning sign should be placed near station 3+20.

g. Speed Limit:

    i. Add curve warning signs for 30 mph Grey Cloud Trail curves approaching 103rd and add a 30 mph speed limit sign into development on Road A. Similarly, a 30 mph sign should be placed on Road E as traffic enters the development.

h. There is an existing "Restricted Bridge" sign on Grey Cloud Trail just south of the existing 103rd Street intersection. This sign should be salvaged and reinstalled and placed just south of the realigned intersection.

i. Add X4-5 snowplow markers on the end of each rural to curb and curb to rural transition. See city detail STR-7.

29. Pavement markings:

    a. Pavement markings are not needed for shared thru/right lanes, only needed for dedicated turn lanes.

    b. Final plans will need to note pavement marking colors, thickness, and materials. This will be reviewed during final design.

        i. For example, a double-yellow centerline should be placed on realigned Grey Cloud Trail from 103rd Street to the tie-in near station 6+25, with a gap at the intersecting public street cul-de-sac.

        ii. All pavement markings to be ground-in multi-comp on Grey Cloud Trail & 103rd Street

30. Entrance monument: Please keep the monument 10-ft off right-of-way to preserve room for private utilities immediately behind right-of-way. At a minimum, drainage and utility easement should continue through the front of the outlot to match adjacent lots and compliment potential private utility installations. This comment applies to all other outlots adjacent to right-of-way on the project.

31. Streetlight locations: Place lights at the locations indicated in the figure attached to this memo.

32. Sidewalk on Road A should be turned 90-degrees with a pedestrian ramp into Road A near the end rads of the 103rd Street intersection. Similarly, sidewalk should be extended on Road E and terminated at the Road E/Grey Cloud Trail intersection in the same manner.

<u>Sheet 25:</u>

33. Road E: Construct concrete curb and gutter to the end rads at Grey Cloud Trail.

<u>Sheet 26:</u>

34. Trail E: for potential snow removal, please remove the sharp changes in direction at Trail F. It would be preferred to continue Trail E straight at the intersection with Trail F.

Sheet 28:

35. Trail A & C: line up the trail crossing of Road G.
    a. Pavement markings will be required for the trail crossing:
        i. Provide two 12" wide transverse solid white pavement markings (paint) separated by the width of the trail (8')
    b. Signs should be placed on the back side of the crosswalk (W11-2 30x30 & W16-7P 24x18).
    c. The above comments also apply to the trail crossing of Road F and Trail E onto Road H.
    d. For clarity, please note on the plans that any pavement marking will need to be applied in a temporary manner on the interim streets (prior to final wear course), and permanent markings applied when the wedge is removed and the final wear course is placed.

Sheet 30:

36. The Developer shall provide a detailed plan to maintain access to the City Park Preserve throughout construction activities. Short periods of time where the preserve cannot be accessed may be acceptable, however detail shall be provided that describes the length of time and the reason for the inability to maintain access.
    a. A temporary gravel parking lot shall be provided for potential users of the city park outlot. The lot should provide parking for 10 vehicles minimum and be accessible south of Road E.
    b. A natural trail should be provided from the parking area through the park outlot and to the remaining existing trails in the City Park Preserve.
    c. Staff will provide additional detail for the parking area and natural trail as the Developer verifies phasing and access plan.
37. Barricades and future street extension signs shall be provided per city standard details STR-31 and STR-32 near the south end of Road E and the temporary gravel parking area. Final location will be determined during final design.
38. Trail B should connect to the existing trail in the park preserve to the east. The trail should be placed 20-ft min. off of the rear of the proposed lots. There are limits to new trail that can be constructed in the preserve area and that work will need to be coordinated with City staff.

Sheet 31:

39. Trail E: the city needs a 20-ft minimum outlot width for maintenance as it connects to Road H.
40. The trail network within the City Park Preserve is being reviewed. Further direction from the City Parks Department will be provided. Several modifications are as follows:
    a. Trail D should not encroach onto Lot 10 Block 17 at all, keep trail in outlot.
    b. Trail D should provide a 20-ft outlot between Lots 1&2 Block 17 and the park preserve area. As shown, the trail is too close to the preserve.
    c. A new trail segment should connect the existing trail that terminates at the rear lot line of Lot 30 Block 16 and Trail D at the Road H cul-de-sac.

Sheet 32:

41. Grading Note 4: Change City of Dayton to Cottage Grove. Note 5 should be modified as well.
42. Grading Note 10: In public right-of-way or Outlots, 6" (min.) of topsoil shall be placed.
43. Retaining wall notes: please clarify if there are proposed retaining walls on the project, none were observed.

Sheet 34:

44. Plans should carefully identify all EOF locations with direction arrows for review. For example, there appears to be an EOF near the southern radius of Road A at the 103rd Street intersection that is not labeled.
    a. All other locations should be checked for accuracy. For example, on Sheet 35 there is an EOF labeled between Lots 40 & 41 Block 5 that is lower than the right-of-way elevation. If true, the right-of-way elevation should be labeled as the EOF.
45. When possible, it is desirable for an EOF to align with a trail or pond access route as there is a wider outlot or easement to maintain. Evaluate if the proposed EOF between Lots 2 & 3 Block 3 can be relocated (it appears the EOF will be on either side of the proposed street low point anyway).
46. Ensure pond high water levels are contained within the proposed outlots and do not encroach onto adjacent lots or right-of-way.
    a. Additional spot elevations should be provided during final design to ensure the HWL of Pond 6 does not spill into the future county right-of-way.
47. Grading within greenspace should be 2% minimum for drainage. As final plans are developed please ensure conformance. The ditch along the 103rd Street low point near station 22+50 does not appear to meet this standard.

Sheet 35:

48. Final plans shall include a grading plan with all lot corner elevations labeled, including undisturbed wooded areas, in order to better understand the expectations for existing drainage patterns.
49. Freeboard Standards:
    a. For stormwater facilities with emergency overflows, the low adjacent grade elevation for all new structures must be a minimum of 3 feet above both the peak surface water elevation for the 100-year precipitation event and 2 feet above the emergency overflow elevation of any immediately adjacent new stormwater basin.
    b. For backyard and side-yard conveyance and temporary ponding areas, there must be at least 1 foot between the overland overflow elevation and the low adjacent grade elevation of the adjacent structure.
        i. It appears Lot 28 Block 5 does not meet this requirement. Verify all other locations.
50. The easement on Lot 11 Block 4 and associated storm sewer in the yard: Please evaluate if the yard can be graded to drain to the street and the proposed storm structure eliminated. Perhaps the street grade could be adjusted slightly to accommodate this.

a. If the structure can't be removed and is located at a low point, an EOF should be labeled here as well.

51. Lots 5-17 Block 4:

    a. Existing drainage occurs outside of the proposed drainage and utility easements in the wooded areas to remain undisturbed. In order to preserve the existing drainage patterns, drainage and utility easement should be enlarged to encompass these areas.

    b. Anytime drainage from one lot passes across another, the location of drainage shall be encompassed by drainage and utility easement.

    c. The above comments apply to Lots 20-27 Block 4 as well, both inside and outside of the undisturbed areas.

    d. Please review all other areas within the development for conformance.

52. All backyards should provide a minimum 20-lf of backyard at a maximum 10:1 slope. For example, it appears Lot 4 Block 4 has a 3:1 slope off the rear of the pad. Please review all lots.

Sheet 38:

53. Refer to the profile of Trail A on Sheet 49. Evaluate ways to eliminate the 8% grade from a horizontal s-curve adjacent to ponds. Perhaps the pond shapes could be revised and trail straightened out where steeper grades are necessary.

Sheet 40:

54. We understand the scope of improvements within the city park and the conceptual grading is still a work in progress. Therefore, it was not reviewed at this time.

55. For clarity, since there appears to be some additional grading required in the area behind Lots 9-10 Block 14 to the disturbance limits, it is requested to add notes to grade the area to drain and add the intended existing tie-in spot elevations along the disturbance limits line like the other lots adjacent to it.

56. All existing ash trees within the city park should be removed by the developer.

Sheet 42:

57. Access to Pond 1:

    a. Remove the hatched access between Lots 18 & 19 Block 2 since a 20-ft wide outlot was not provided. Since an access route is provided from the east, this secondary access is not required.

58. Pond Liner note (sheets 42-46):

    a. State that the liner shall have a maximum permeability of $1x10^{-6}$ cm/s and a minimum thickness of 12", unless more restrictive measures are recommended by the geotechnical engineer due to the presence of bedrock. A recommendation shall be provided to the city by the geotechnical engineer where bedrock is present; for example Braun has recommended a 2' liner over bedrock in the past.

59. Weir wall thickness and reinforcement requirements will be reviewed and provided during final design, and once all stormwater requirements have been met.

Sheet 44:

60. Pond 6: Utilize the adjacent pedestrian ramp for the pond access from Road A and widen the pedestrian ramp and approximately 9-ft of sidewalk to 8-ft in this location.
61. Infiltration Basin 2: Connect the pond access on the west side of the basin to Trail E.

Sheet 47:

62. 103rd Street: The design speed should be 40 mph.
    a. The sag curve with a K=37 should be revised to K=64.
63. Please obtain a 2.0% maximum grade for first 100-feet approaching an intersection.
    a. Grey Cloud Trail approach to 103rd: The approach distance is measured from the vehicle stop location to the location where the grade exceeds 2.00%, therefore the 2% grade should be lengthened approximately 21-feet.
64. Road C: ensure sag k-values are 37 minimum.

Sheet 48:

65. Please obtain a 2.0% maximum grade for first 100-feet approaching an intersection.
    a. Please improve the Road I approach to Road H.

Sheet 49:

66. Please depict trail stationing in plan view so the profiles can be reviewed more easily. It appears the intent is to generally keep trail grades to 5% or less which is preferred to meet ADA standards. However, please review and evaluate if some trail grades can be adjusted (e.g. the 5.5% on Trail E).
67. Please work to limit the length of 8% grades to 200-lf maximum when possible.
68. On final plans, please depict vertical curves on trail profiles (e.g. Trail C).

Sheet 59:

69. Erosion Control General Note 1: City ordinance limits work activity to 7am-7pm Monday through Friday, and 9am-7pm on Saturday.

Sheet 60:

70. As previously noted, utility notes should be revised to reference the City of Cottage Grove's Standard Specifications for Street and Utility Construction, as those should apply to the entire project area and not just right-of-way. This comment also applies to Sheet 70.
71. Please indicate if any proposed HOA outlots or the entrance median will be irrigated. The City prefers individual services to each area being irrigated rather than installing irrigation conduit crossings across public streets.
    a. Irrigation services shall conform to SER-12 and SER-13. Please note that the service shall be 4" DIP with a gate valve.

Sheet 61:

72. The plans reference "forcemain by others see separate plans for details." The lift station plans are being prepared by others, and the forcemain sizes will be provided but the developer's final plans should depict the forcemain construction and connection to existing facilities.
    a. Like a sanitary drop structure, the city will require that the forcemain discharge manhole be lined in accordance with the city standard specifications.
73. Casing under railroad:
    a. 18" watermain:
        i. Based on the most recent edition of the BNSF Utility Accommodation Manual, a 32" casing is the minimum size required for an 18" DIP watermain. The most common casing size, based on locally available tunneling equipment would be a 36" steel casing. Depending on soil conditions at the specific crossing location, a 42" casing size may be warranted to allow removal of obstructions (nests of cobbles or boulders). There is currently not enough geotechnical data near the proposed railroad crossing location to confirm the tunneling method. The closest boring indicates that bedrock is present at approximately 7 feet below grade. An adjacent boring, ST-103, show fine grained alluvial soils that are loose and wet. We recommend that a geotechnical drilling program be developed to allow for a more complete understanding of the local geology and use that information to design a suitable trenchless crossing.
    b. 8" Watermain:
        i. To meet the railroad's requirements, it appears an 18" minimum casing is required. An 18" casing is an unusual size for trenchless equipment, and we would recommend upsizing the casing to a 24" casing. As with the 18" watermain crossing, there is not sufficient information to finalize the size of the casing and the proposed tunneling method. At a minimum, a soil boring should be drilled in the tunnel launch and receiving pits. If soft soils are present, a third boring should be drilled at the toe of the railroad embankment to confirm if any supplement support methods were used to support the railroad embankment which could hinder the success of the tunneled crossing.
    c. When conducting the geotechnical investigation work, the soil should be sampled at 2.5' intervals and preferably continuous sampling through the tunnel zone. When bedrock is encountered, it should be cored to a minimum of 5 feet below the proposed casing to confirm the quality/competency of the rock and also confirm the bedrock encountered is not a segment of bedrock floating in the adjacent alluvial soils. Cohesionless soils should have sieve analysis performed to confirm grain size and ability to dewater and/or stabilization methods. Cohesive soils should be tested for unconfined compressive strength using a pocket penetrometer.
    d. If bedrock is encountered, the tunnel design will need to consider minimum bury depth below the track, ditches and private utilities in the railroad ROW. Also, consideration will need to be given whether to lower the alignment into the bedrock to provide minimum burial depths and consistent tunneling conditions.

74. A watermain loop is needed to serve the development. A single point of service exists along Road A at the entrance to the development and a break would shut off all homes. Provide a secondary loop from the 18" dead end on Grey Cloud Trail to Road C. In doing this, the proposed 8" main across the 103rd Street right-of-way at Road A could be omitted.
    a. Provide a hydrant near the end of the 18" main.
75. The 8" PRV should be located in an outlot behind Lot 1 Block 1. Please revise the lot depth of Lot 1 Block 1 to 125-feet to create an outlot between the lot and the 103rd Street right of way. See the attached watermain layout.
76. The fire marshal will review hydrant coverage on the final plans.
77. Valve locations will be reviewed on final plans.
78. PRV Locations: please refer to the watermain layout drawing attached to this memo. A sample PRV detail will be provided for reference.
79. An 18"x18" tee should be provided on the 18" main just south of the proposed Grey Cloud Trail cul-de-sac. This will allow the watermain to be extended north in the future.
80. Outlot C will be a private outlot and storm pipe appears to encroach into the outlot. Please indicate how to resolve:
    a. Provide adequate separation from the outlot following previous easement width guidance, or:
    b. Provide drainage and utility easement over Outlot J and enter into an agreement similar to the median landscaping stating that if the pipe needs to be maintained, the city will not be responsible for removing or replacing landscaping or monument signage.

Sheet 69:

81. The 8" watermain on the south side of 103rd Street should connect to the east of where it's depicted on the submitted plans. Attached is a record plan for the Settler's Bluff development. A tee was installed around station 26+20 and is pointing south, the new watermain should connect at this location.
    a. A hydrant should be placed on the south side of the road before the bend across 103rd Street.
    b. Removals should be depicted for the watermain across 103rd Street. On final plans, note how traffic will be maintained during construction.
82. It appears the table is out of date, for example there is not a pipe segment from MH-60 to MH58 on the plans but it is listed on the table. No further review of the table was performed.
83. If a drop structure is utilized, please be aware the structure will need to be 5'-diamter and lined per city standard detail SAN-4.

Sheet 71:

84. On final plans, all new storm structures shall have structure numbers (some structures being built over existing pipe are not labeled). On the final storm sewer schedule on sheet 78, a column should be added to identify which city detail should be followed for each proposed structure, such as STO-5.

85. Explain the purpose of the pipe under Grey Cloud Trail from FES-2601 to FES-2600. Evaluate if FES-2601 be connected to the pipe segment directly to the south; this could possibly save pipe and reduce an additional crossing of the future county road.
86. Avoid placing storm pipe behind the curb as that location typically conflicts with streetlight bases, signs, and boulevard tree plantings. This may require structures to be moved or additional structures to be added; storm manholes can be used as necessary if catch basins aren't needed for drainage. For example, storm sewer falls behind the curb at the Road A/Road B intersection, and is behind the southern curb line of Road C. For the example on Road C, the storm pipe would be in conflict with the light pole foundation. This comment applies to all sheets.
87. It would be preferred to place MH-1501 at the edge of right-of-way where it's more accessible in the boulevard vs. on a 3:1 slope.
88. Access routes: during final design ensure access routes are graded around outlet structures such that a 10-ft route is passable with a maintenance vehicle. As depicted, OCS-2201 is in the bench and is not traversable. This comment applies to all pond outlets and routes.

Sheet 73:

89. It would be preferred and likely more cost effective to connect CB-503 to CB-504 and have one pipe crossing of Road H.

Sheet 75:

90. Due to the available room in the public outlot, please keep the proposed storm pipe from OCS-1902 to MH-1901 off the rear lot lines, a minimum separation distance equal to the depth of the pipe. This appears it can be accomplished by shifting MH-1091 to the west.
91. MH-1301: There is 6-ft between trail and lot line so it would be preferred to center the structure in available green space vs. placing it on the lot corner.
92. CB-1101: It would be preferred to locate this structure in Outlot so that is could not get fenced in and is always accessible.

Sheet 76:

93. Outlot J will be a private outlot and storm pipe appears to encroach into the outlot. Please indicate how to resolve:
    a. Provide adequate separation from the outlot following previous easement width guidance, or:
    b. Provide drainage and utility easement over Outlot J and enter into an agreement similar to the median landscaping stating that if the pipe needs to be maintained, the city will not be responsible for removing or replacing landscaping or monument signage.

Sheet 78:

94. Similar to the previous guidance on easement widths, ensure the storm pipe near MH-1802 provides enough separation to the park preserve area.

Sheet 79:

95. Sheet 79, which contains the storm sewer schedule, is incorrectly labeled as Sheet 78.
96. PP and RCP limits: Please refer to the following restrictions and update limits accordingly.

a. All pipe segments connected to flared end sections or outlet structures shall be reinforced concrete pipe.
b. All pipe segments within public right of way shall be reinforced concrete pipe.

97. Since the city standard specification only refers to RCP storm sewer pipe, a project-specific addendum will be provided for use with this project outlining requirements of the proposed PP pipe.

98. All structures shall be a minimum 2'x3' catch basin or 4'-dia. manhole structure per the city standard detail plates, no 27" structures allowed. A column should be added to the table to identify which city detail applies to each structure.

99. The table appears out of date and does not match what's shown in the plans (e.g. the table depicts a pipe from OCS-2201 to FES-2200 but the plans show a culvert pipe from FES-2200 to FES-2600 (FES-2200 is the upstream structure). No further detailed review of the table was performed.

    a. Pipe outlets to wet ponds should be placed at the NWL and have design velocities of 6 fps or less. Pipe outlets into filtration basins or other overland discharge should have design velocities of 4 fps or less.
        i. The pipe to FES 1600 appears too steep in the table on Sheet 79, as do pipes to FES-2100, FES-2200, FES-2400 (although some of these structure numbers do not match what is in the plans).

Sheet 80:

100. It is understood the developer is working with the LGU on a Wetland Replacement Plan Application. Please copy the city on all correspondence and submittals.

Sheet 81:

101. Yellow text is difficult to read, please revise.

Sheet 84:

102. The plans depict numerous boulevard trees along Road A adjacent to Outlot G & Outlot D. Trees should be placed no more frequently than the lots to the south, in this case approximately 75-ft apart.

103. Ensure boulevard trees are not planted on property lines.

104. For the 40' and 52.5' lots, ensure boulevard trees are planted on every other lot.

105. One boulevard tree shall be planted on each street frontage (2 for corner lots)

    a. Lot 25-26, Block 5
    b. Lot 22-23, Block 12
    c. Lot 54, Block 5
    d. Lot 1, Block 11
    e. Lot 8, Block 9
    f. Lot 19, Block 11
    g. Lot 36, Block 8
    h. Lot 1, Block 2

106. Update the plan to include rear yard trees, or explain why no rear yard tree is present on the following lots:
    a. Lot 28, Block 16
    b. Lots 1-5, Block 14
107. It is understood that a maintenance agreement will be created and the HOA will be responsible for the landscaping within the entrance median in city right-of-way.
    a. The density of boulevard plantings and landscape blocks in the Road A right-of-way at the development entrance (Sheet 92) is greater than is typical. These plantings should be incorporated into the maintenance agreement like the median plantings. It should be acknowledged that some of the proposed landscaping may be lost should a future right-turn lane be constructed on Road A to 103rd Street.
    b. Entrance monument: some trees are located in the city outlot. Either the HOA outlot should be expanded to encompass the landscaping or the additional trees should be removed from the city outlot.

Sheet 88:

108. Lot 1-7 Block 12: based on bedrock elevation noted on Sheet 42 (731) within Pond 2, as well as bedrock at TP-44 (742.5,) bedrock may be approximately 2' below finish grade and may impact tree planting locations. A certified arborist should review tree locations and species based on the proposed conditions of each tree.

Sheet 92:

109. Sheets 92 and 93 are misnumbered as Sheet 94.
110. No trees should be located within a storm pond's 20-ft access route, and no coniferous trees within 5' of the 20' pond access route. There are coniferous trees too close to the pond access route near the monument sign. Please review the planting restrictions identified later in this memo and ensure they are applied to the entire plan.
    a. A detailed review of the planting restrictions will be performed on the next submittal.

Sheet 94:

111. Landscape Note #6: The warranty period shall be 2-years for any landscape item in public right-of-way or public outlot, per city City's Standard Specifications (Section 32-93-05). Please add a note that the city standard specification shall govern for improvements on public right-of-way or public property.
112. The City Forester will review the landscape plan for details related to tree species and planting locations. List the following restrictions on the plan such that they can be adhered to during installation and ensure they are applied to the proposed plan:
    a. Deciduous trees should be located a minimum of 5' off any utility pipe.
    b. Coniferous trees should be located a minimum of 15' off any utility pipe.
    c. No tree should be located within 10' of a hydrant or 15' from a streetlight.
    d. No trees should be located within a storm pond HWL.

e. No trees should be located within a storm pond's 20-ft access route, and no coniferous trees within 5' of the 20' pond access route.

f. No coniferous trees within 20' of a proposed sidewalk/trail.

g. No deciduous trees within 5' of sidewalk/trail/driveways.

h. Trees should not be planted within drainage and utility easements

i. Boulevard trees and trees within City outlots should conform to the attached approved species list.

    i. Please review species list and locations. For example, River Birch Maples must be single stem and Maple trees must be limited to private outlots/lots.

113. Replace landscaping details with city standard details LAN-1, LAN-2, and LAN-3 for use on public property.

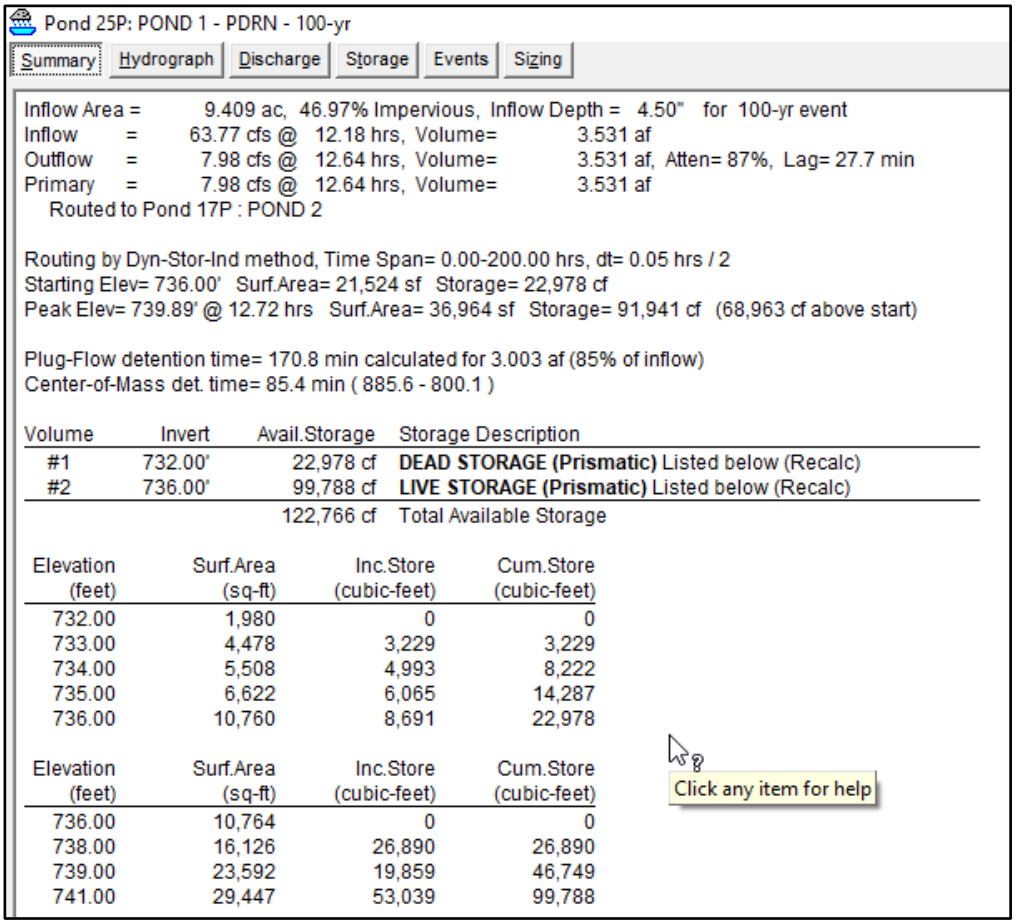
114. The 40'-Lot planting detail appears incorrect and should be modified to match the landscape plan and comments above.

Stormwater Comments:

115. HydroCAD:

a. Reports: Existing HydroCAD Reports were not included in the stormwater narrative appendix. Please include existing conditions HydroCAD reports in future submittals.

b. Storage: Many of the ponds include separate dead storage and live storage tabulations of elevation, area and volume. This approach seems to cause the model to output incorrect surface areas in the pond summary tab. For example, 25P Pond 1 output (reprinted below) indicates that the surface area at the NWL starting elevation is 21,524 sf—which is double the actual value of 10,760 sf. The surface area at the HWL 739.89 is listed as 36,964 sf—which is also too high due to double counting of the NWL surface area. Please consider deleting the dead storage input data to correct the surface area calculations and output and also please verify that the model results for stage, storage and flow are correct.



Pond 25P: POND 1 - PDRN - 100-yr

Summary | Hydrograph | Discharge | Storage | Events | Sizing

Inflow Area = 9.409 ac, 46.97% Impervious, Inflow Depth = 4.50" for 100-yr event
Inflow = 63.77 cfs @ 12.18 hrs, Volume= 3.531 af
Outflow = 7.98 cfs @ 12.64 hrs, Volume= 3.531 af, Atten= 87%, Lag= 27.7 min
Primary = 7.98 cfs @ 12.64 hrs, Volume= 3.531 af
Routed to Pond 17P : POND 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 736.00' Surf.Area= 21,524 sf Storage= 22,978 cf
Peak Elev= 739.89' @ 12.72 hrs Surf.Area= 36,964 sf Storage= 91,941 cf (68,963 cf above start)

Plug-Flow detention time= 170.8 min calculated for 3.003 af (85% of inflow)
Center-of-Mass det. time= 85.4 min (885.6 - 800.1)

Volume	Invert	Avail.Storage	Storage Description
#1	732.00'	22,978 cf	**DEAD STORAGE (Prismatic)** Listed below (Recalc)
#2	736.00'	99,788 cf	**LIVE STORAGE (Prismatic)** Listed below (Recalc)
		122,766 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
732.00	1,980	0	0
733.00	4,478	3,229	3,229
734.00	5,508	4,993	8,222
735.00	6,622	6,065	14,287
736.00	10,760	8,691	22,978

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
736.00	10,764	0	0
738.00	16,126	26,890	26,890
739.00	23,592	19,859	46,749
741.00	29,447	53,039	99,788

Click any item for help

c. Curve Numbers: Previous comments: Curve numbers of 52 are used in the HydroCAD model for proposed conditions grass. Section 6.1.2 of the Surface Water Management Plan recommends a CN value of 61 for site pervious areas. Please use a CN value of 61 for proposed conditions site pervious areas or explain why a CN 61 is not appropriate.

Response of Alliant: "Based on the geotechnical report, the site is predominately considered A soils. For grassed areas with A soils, HydroCAD suggests a curve number of 39. Because the existing conditions must assume pervious areas do not have a curve number less than 52, we did not find it appropriate to assume that the pervious curve number should decrease. We have identified in the stormwater report that the pervious areas will continue to have a curve number of 52, because both the ground cover and underlying soil will remain the same."

The City Surface Water Management Plan Section 6.1.2 explains*: For the areas within the City containing primarily HSG A soils, the CN values within Table 6.1 for certain land use types (Bluff/Ravine, Park/Open Space, Rural Residential and ROW) may be lowered to reflect soils with a higher infiltration rate. However, it is assumed that the pervious surfaces for more urban land use types (Urban Residential and Commercial/Industrial) containing primarily HSG A will actually generate runoff depths similar to that of HSG B soils, due to factors such as:*

- *Compaction of the soil surface layer during construction*
- *Placement of topsoil and sod to retain soil moisture and promote healthy turf establishment*
- *Efficiently graded lots, limiting the amount of runoff allowed to pool on the*

landscape and infiltrate.

The CN values presented in Table 6.1 should be adjusted for site specific conditions based on the site percent impervious surface, as necessary. Generally, these calculations should assume a CN value of 61 for site pervious areas.

The MPCA Stormwater Manual advises: "*Soils at construction sites are generally compacted as a result of excavation, mixing, stockpiling, equipment storage, and equipment traffic…. The two most common methods for alleviating compaction are soil ripping (also called subsoiling or tilling*) and addition of organic matter… *Compacted layers typically develop 12 to 22 inches below the surface when heavy equipment is used. Conventional cultivators cannot reach deep enough to break up this compaction. Subsoilers (rippers) can break up the compacted layer*…" [1]

It seems appropriate to use a lower curve number of 52 for areas of wetland buffers, parks, open space, and rail and highway rights of way. CN 61 should be used for pervious areas in residential and other development areas where mass grading and compaction are likely.

116. Outlet Control Structure Drawings:

a. Sheet 42: Pond 1 OCS 1902 is a 5' diameter MH with a weir at elevation 936. The HydroCAD model lists this weir as 4.5 feet long. Please adjust the plans and model to be consistent.
b. Sheet 42: Pond 2 detail includes a typo, the EOF profile is listed as "933" and should be corrected to "733".
c. The Pond 2 15" RCP equalizer pipe listed on Sheet 78 with inverts of 729—which is 2 feet higher than the NWL of 727. Please set pipe inverts so pipe is below the NWL.
d. The Pond 2 OCS includes a 6" orifice at elevation 727. The weir top elevation is not listed. Please list the weir top elevation above the HWL of 732.14 for consistency with HydroCAD.
e. Sheet 43: The Pond 7 OCS 2001 Detail should be revised to correct the orifice elevation to the NWL of 716.5. Please also include the top of weir elevation of 719.0 for consistency with HydroCAD.
f. Sheet 44: Please include a detail of OCS 1601 for Pond 6P (WB-01D).
g. Sheet 44: Please include a detail of OCS 1403 for Pond 5P (WB-01A)
h. Sheet 44: Please make corrections to the Pond 6 OCS Detail for consistency with the HydroCAD model, including changing the OCS ID number from 1403 to 2201, adding a 6" orifice at elevation 711, correcting the NWL and pipe invert elevations to 711.0, and extending the top of the weir above the HWL of 715.1.
i. Sheet 46: The infiltration profile and OCS detail in the lower left are mislabeled, and should probably be revised to reflect "Infiltration 4."
j. Sheet 46: The Infiltration 3 OCS detail in the lower right is mislabeled, and should probably be revised to reflect "CBMH 1805" rather than "1705."

117. Volume Control: The proposed project will increase impervious areas by 34.68 acres. The 1" volume control requirement for this impervious area is 125,901. Four infiltration basins are proposed for volume control including a combined potential treatment volume of 126,864 cubic feet. Only 28.2 acres of the 139.6-acre site drains to the infiltration basins and only 10.7 acres

[1] https://stormwater.pca.state.mn.us/index.php/Alleviating_compaction_from_construction_activities Accessed 1-05-2024

of impervious surfaces of the 34.68 acres of increased impervious (30.9%). Please work to provide additional volume control and/or explain why full treatment is not feasible.

HCAD ID	Basin	Potential Infiltration Volume Provided (cf)	HCAD Drainage Area (acres)	HCAD Impervious Area (%)	Impervious Area (acres)	1" Runoff from Impervious Surfaces (cu ft)
30P	Infiltration 1	77751	23.587	40.65%	9.59	34805
26P	Infiltration 2	12022	1.141	22.13%	0.25	917
28P	Infiltration 3	28379	1.765	22.13%	0.39	1418
24P	Infiltration 4	8712	1.733	29.00%	0.50	1824
		126864	28.23		10.73	38964

118. Infiltration Basins:

a. Four proposed infiltration basins will provide most of the infiltration on site (Infiltration basins 1, 2, 3 and 4). Multiple borings and test pits were put down near each infiltration basin. Please show the soil classifications within the borings shown on the infiltration profile drawings on Sheets 44 through 46 to demonstrate the soil types and depths to bedrock in support of the proposed 0.8 in/hr. design infiltration rates.
b. Pretreatment: Please add a sump to MH 1801 as additional pretreatment of Infiltration Basin 1 or explain why this is not feasible.
c. The HydroCAD model simulates infiltration (0.8 in/hr.) within seven basins along Grey Cloud Trail and 103rd Street (1P, 2P, 3P,7P, 9P, 10P, and 29P). Please show these infiltration basins in the plans and provide additional information on soils, pretreatment and maintenance to demonstrate that long term successful infiltration is practical, or if long term infiltration is not practical remove infiltration from simulation of those basins.

119. Storm drain outlets: Previous comments and responses stated that flared end sections would be placed at the NWL. Recent guidance from the Dept. of Labor and Industry calls for storm drains to outlet at elevation of the NWL plus the water quality treatment volume.

120. SWPPP: The SWPPP was reviewed using an MPCA Construction Stormwater Permit checklist. Please update the SWPPP to include additional information such as:

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP
- Identify the entity (name or title) responsible for performing future Operations and Maintenance (O&M).
- Include documentation for all trained individuals.
- Location of areas where construction will be phased to minimize duration of exposed soil areas.
- Include tabulated quantities of erosion control BMPs
- Areas of steep slopes (3:1 and greater)
- List name of trained inspector identified in 21.2.b
- Identify how rainfall amounts will be gathered.
- List BMP maintenance requirements and 24 hour timeframe.

- Add note on sediment deposits and deltas
- Add note regarding removal of tracked sediment
- Add note on permanent stormwater BMPs inspection
- Add note limiting exterior vehicle and equipment washing
- Add note on securing portable toilets
- Add notes on temporary sediment basins requirements.

121. Please demonstrate that runoff to the neighboring property from Lots 1-3 Block 13 is not increased in the developed condition.

122. Limestone below ponds: The city would like a written recommendation from a geotechnical engineer as it relates to the proposed pond locations relative to bedrock.

    a. The geotechnical report by Braun Intertec dated 12-19-2023 states that: "*We understand the City of Cottage Grove, in conjunction with the stormwater manual, allows construction of infiltration stormwater ponds when there is a minimum 10 feet of soil separation from the proposed pond bottom to limestone bedrock surface. We further understand if there is less 10 feet of separation from the bottom of ponds to the bedrock surface, infiltration is not permitted, and stormwater basins require placement of a clay liner.*

    This geotechnical evaluation does not constitute a review of site suitability for stormwater infiltration or evaluate the potential impacts, if any, from infiltration of large amounts of stormwater."

    It appears that the 10-foot separation recommendation is in fact from Braun's earlier report dated April 8, 2021 (reprinted below):

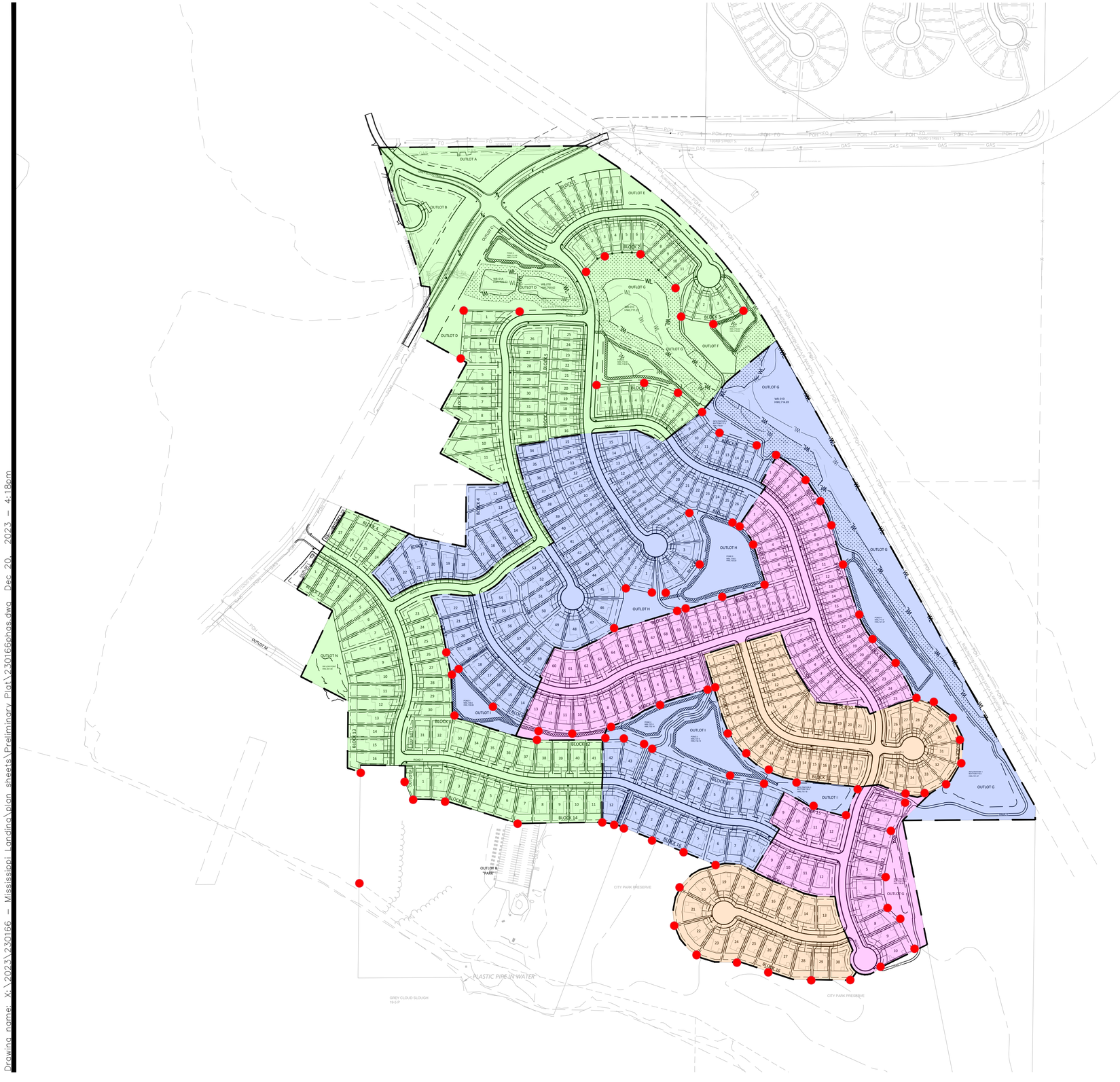
    "Also, we generally do not recommend stormwater storage or treatment areas be constructed within about 10 feet of bedrock surfaces due to possible karst type features which could lead to pond bottom failures. Various types of pond liners could be considered in high elevation bedrock areas."

    Please have Braun confirm they have reviewed the proposed development plans and concur with the approach, and document it in the final report to Rachel Development.

123. Filtration Testing: Post-construction testing of filtration rates within the basin, or post-construction records of water level measurements within the basin, will be required to verify that design filtration rates and drawdown periods will be met.

124. NPDES Construction Stormwater Permit: When the disturbed area of development exceeds 1 acre, an NPDES Construction Stormwater Permit is required. Please provide a copy of the permit when it is received.

125. Models and CAD Files: Please note that digital copies of the final version stormwater models (HydroCAD) and shapefiles or CAD drawings of existing and proposed drainage areas are to be submitted to the city once the review and revision process is complete.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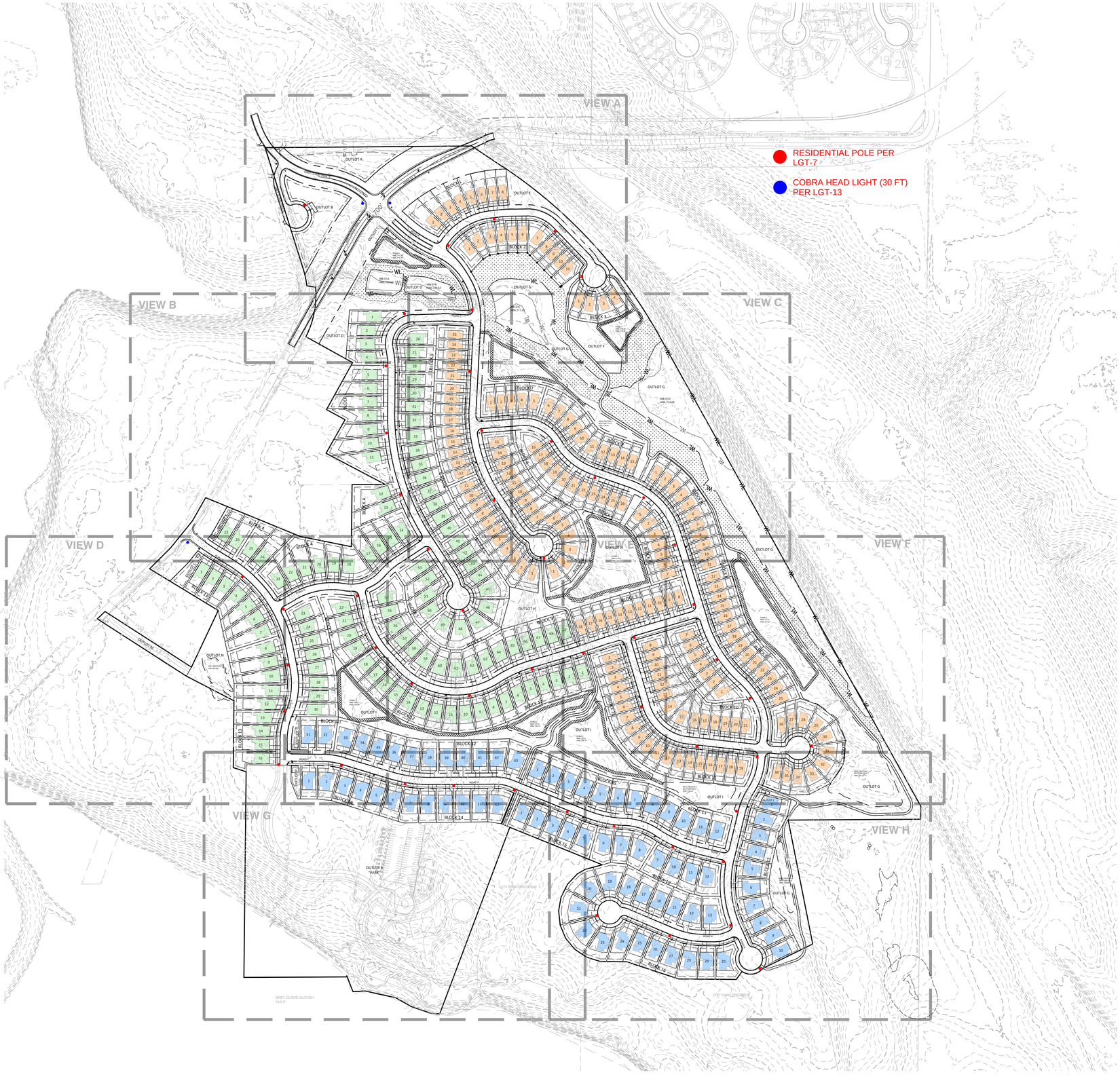

SITE PLAN DATA:

PIDS: 3002721130010	104.9 AC
3002721430002	9.6 AC
3002721430001	4.0 AC
3002721420002	5.0 AC
3002721420003	0.9 AC
3002721420001	2.0 AC
3002721310014	6.9 AC
GROSS AREA	134.82 AC
OUTLOT A (CITY)	0.82 AC
OUTLOT B (CITY)	0.91 AC
OUTLOT R (CITY PARK)	15.09 AC
OUTLOT WITH PONDS/WETLANDS (D,G,H,I)	26.79 AC
OUTLOT (C,E,F,J,K,L,M,N,O,P,Q)	2.56 AC
ROW (FUTURE COUNTY ROAD)	4.45 AC
ROW (GREY CLOUD TRAIL S.)	1.02 AC
ROW (INTERIOR)	18.68 AC
WETLAND AREA (WCA+ACOE)	5.53 AC

SITE PLAN LOT DATA:

SMALL SINGLE FAMILY LOTS (40'):

LOT WIDTH MINIMUM:	40 FT
LOT DEPTH MINIMUM:	125 FT
FRONT YARD SETBACK:	20 FT (NON-SIDEWALK SIDE) OR 22.5 FT (SIDEWALK FRONTAGE)
REAR YARD SETBACK:	30 FT
SIDE YARD SETBACK:	5 FT (BOTH SIDES - 10' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

MID SINGLE FAMILY LOTS (52.5'):

LOT WIDTH MINIMUM:	52.5 FT
LOT DEPTH MINIMUM:	130 FT
FRONT YARD SETBACK:	25 FT (ALL)
REAR YARD SETBACK:	35 FT
SIDE YARD SETBACK:	6.25 FT (BOTH SIDES - 12.5' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

LARGE SINGLE FAMILY LOTS (65'):

LOT WIDTH MINIMUM:	65 FT
LOT DEPTH MINIMUM:	130 FT
FRONT YARD SETBACK:	25 FT (ALL)
REAR YARD SETBACK:	35 FT
SIDE YARD SETBACK:	6.25 FT (BOTH SIDES - 12.5' TOTAL)
SIDE YARD SETBACK:	20 FT SIDE TO RIGHT OF WAY

LOT TYPE BREAKDOWN:

SMALL SINGLE FAMILY LOTS	183
MID SINGLE FAMILY LOTS	117
LARGE SINGLE FAMILY LOTS	77
TOTAL UNITS	377

SITE NOTES:

SEE SHEET 23 FOR TYPICAL LOT DETAILS, TYPICAL ROAD SECTIONS, AND LIGHTING AND SIGNAGE DETAILS.

LEGEND:

- EASEMENT LINE
- BUILDING SETBACK
- PROPERTY LINE
- LOT LINE
- ROW
- STREET SIGN
- STREET LIGHT
- WETLAND BUFFER
- POND ACCESS
- WETLAND BUFFER MONUMENT

LOT STYLE	PAD SIZE
SMALL SF LOTS	30'x65'
MEDIUM SF LOTS	40'x70'
LARGE SF LOTS	52.5'x70'

N

0 100 200 400
SCALE IN FEET

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Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

MISSISSIPPI LANDING
COTTAGE GROVE, MINNESOTA
PRELIMINARY PLAT AND PUD PLAN
SITE, LIGHTING, AND SIGNAGE PLAN OVERALL

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA

MARK R. JESCH, PE
Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

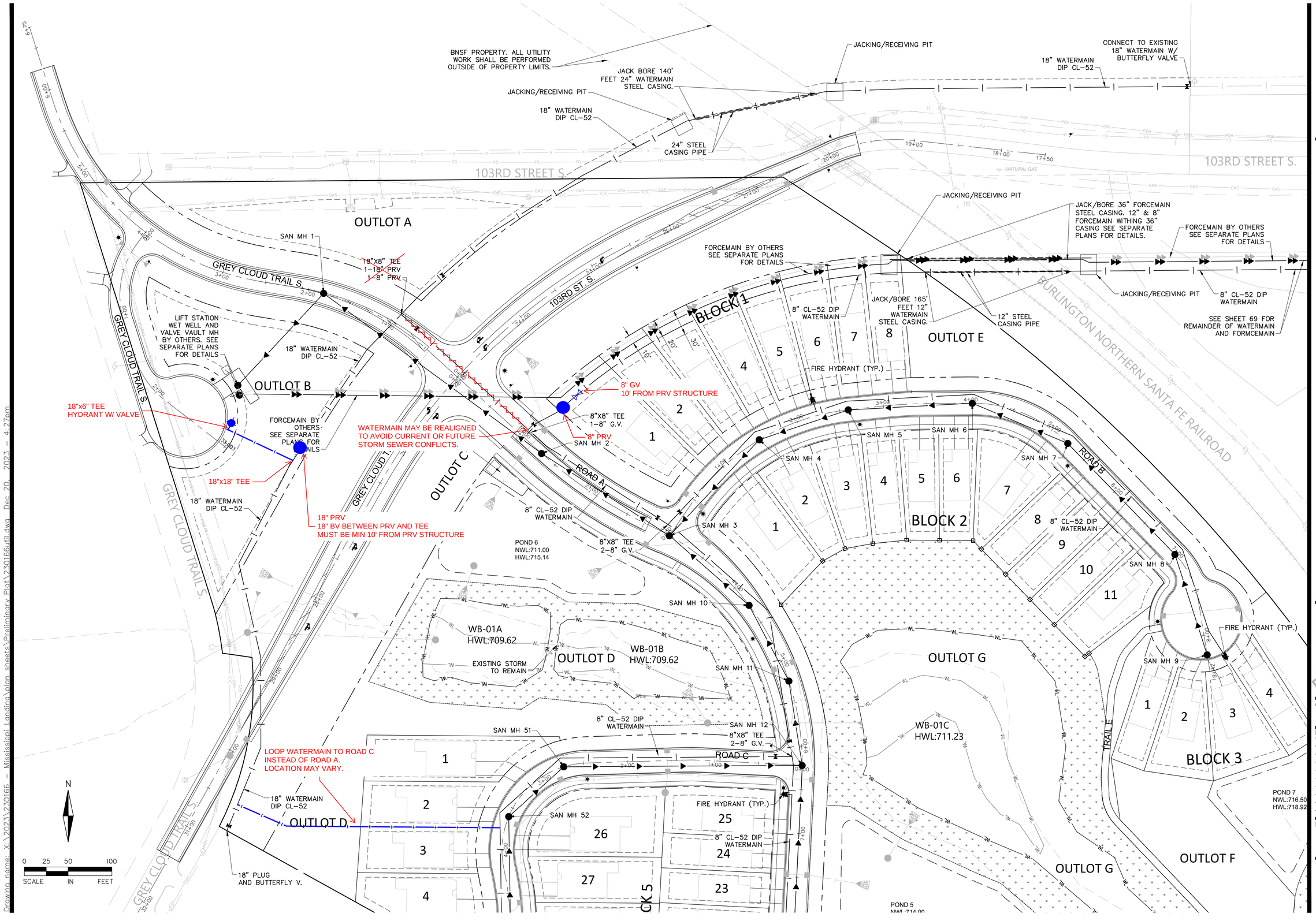
PROJECT TEAM DATA

DESIGNED:	MPR
DRAWN:	LRJ
PROJECT NO:	223-0166

22

SHEET 22 of 110

Drawing name: X:\2023\230166 - Mississippi Landing\plan sheets\Preliminary Plat\230166site.dwg Dec 20, 2023 - 4:18pm



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PRELIMINARY PLAT AND PUD PLAN

SANITARY SEWER AND WATERMAIN PLAN VIEW A

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MARK RAUSCH, PE

Date License No.

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QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
12-20-23	CITY SUBMITTAL

PROJECT TEAM DATA

DESIGNED: MPR
DRAWN: LRJ
PROJECT NO: 223-0166

61

SHEET 61 of 110

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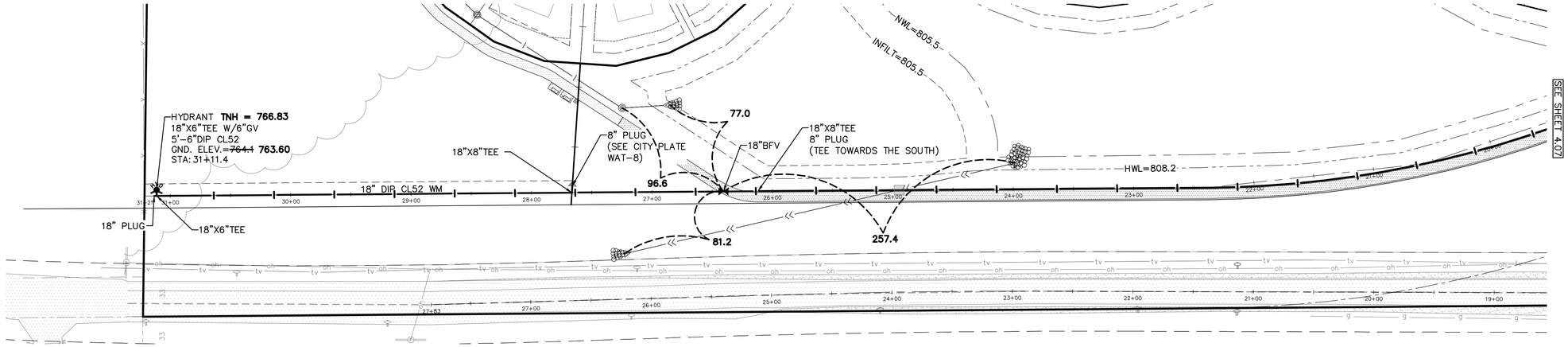


SANITARY SEWER NOTES:
1. ALL PVC PIPE SHALL BE SDR 35 UNLESS OTHERWISE NOTED.
2. SANITARY SEWER CASTINGS PER CITY STANDARD PLATE.

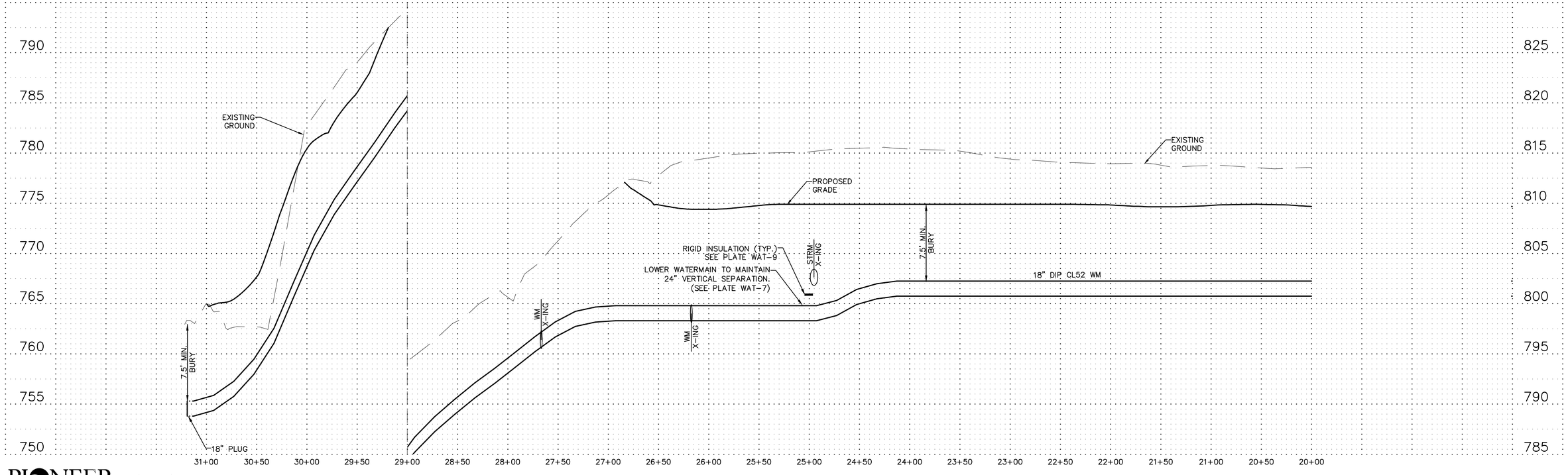
WATERMAIN NOTES:
1. ALL WATERMAIN SHALL BE DIP CLASS 52 WRAPPED IN POLYETHYLENE.
2. WATERMAIN SHALL HAVE A MINIMUM OF 7.5 FEET OF COVER

SERVICE NOTES:
1. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC SCHEDULE 40 UNLESS OTHERWISE NOTED.
2. SANITARY SEWER SERVICE WYES ARE STATIONED FROM DOWN STREAM MANHOLES.
3. ALL WATER SERVICES SHALL BE 1" COPPER TYPE "K" W/7.5' MINIMUM COVER.
4. SANITARY SEWER INVERTS ARE SHOWN AT THE CURB STOP.
5. SANITARY SEWER & WATER SERVICES SHALL BE CONSTRUCTED 10' BEYOND THE RIGHT OF WAY.

0 25 50 100
GRAPHIC SCALE IN FEET

BENCH MARK
MN DOT MONUMENT MARSH NAD83 NAVD88 MN163 0.75 MILES SOUTH ON JAMAICA AVENUE FROM THE INTERSECTION OF TRUNK HIGHWAY 61 AND JAMAICA AVENUE.
ELEV= 807.48 (NAVD88)

OFF-STREET



RECORD PLAN: 02-17-2023 CITY PROJECT NO. ___-___ CONTRACTOR: N.W. ASPHALT

01-ENG-120257-SHEET-SSWR

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(651) 681-1914
Fax: 681-9488
www.pioneereng.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota
Name Paul J. Cherne
Reg. No. 19860 Date 06-25-2021

Revisions
1. 07-22-2021 City Comments
2. 08-05-2021 City Comments
3. 08-12-2021 City Comments
4. 08-19-2021 City Comments
5. 12-01-2021 City Comments
6. 04-11-2022 107rd St. WM
7. 08-02-2022 Record Plans
8. 02-17-2023 Revised Record Plans
9. 05-22-2023 Revised Record Plans

Date 06-25-2021
Designed PJC/BNM
Drawn BNM/PDS

SANITARY SEWER & WATERMAIN PLAN

COTTAGE GROVE 648-1 LAND, LLC
14015 SUNFISH LAKE BLVD SUITE 400
RAMSEY, MINNESOTA 55303

SETTLERS BLUFF 1ST ADDITION
COTTAGE GROVE, MINNESOTA

4.08 OF 51

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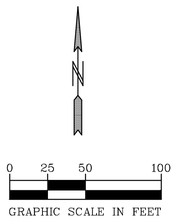

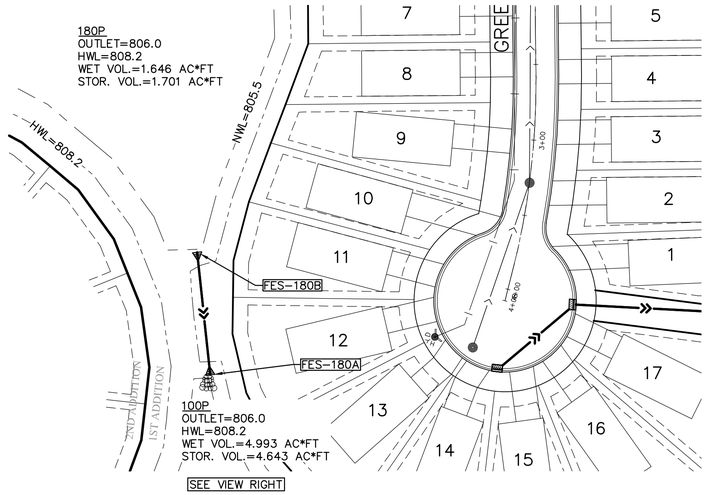

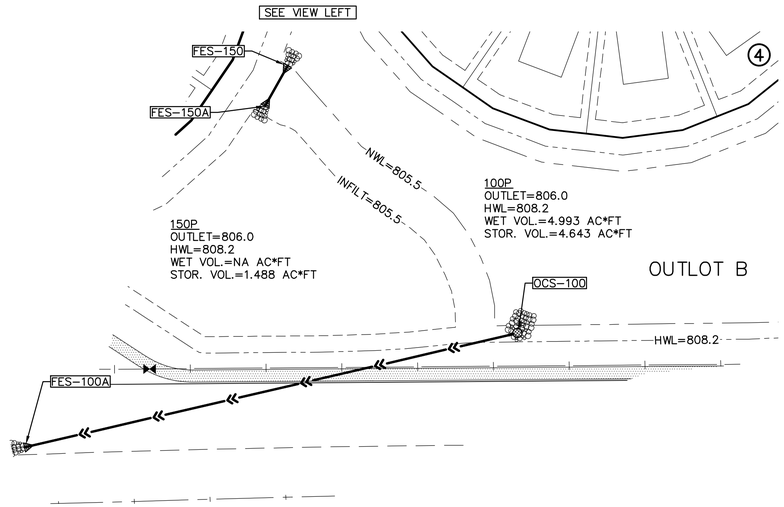

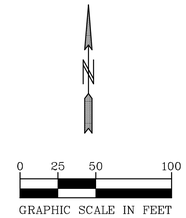

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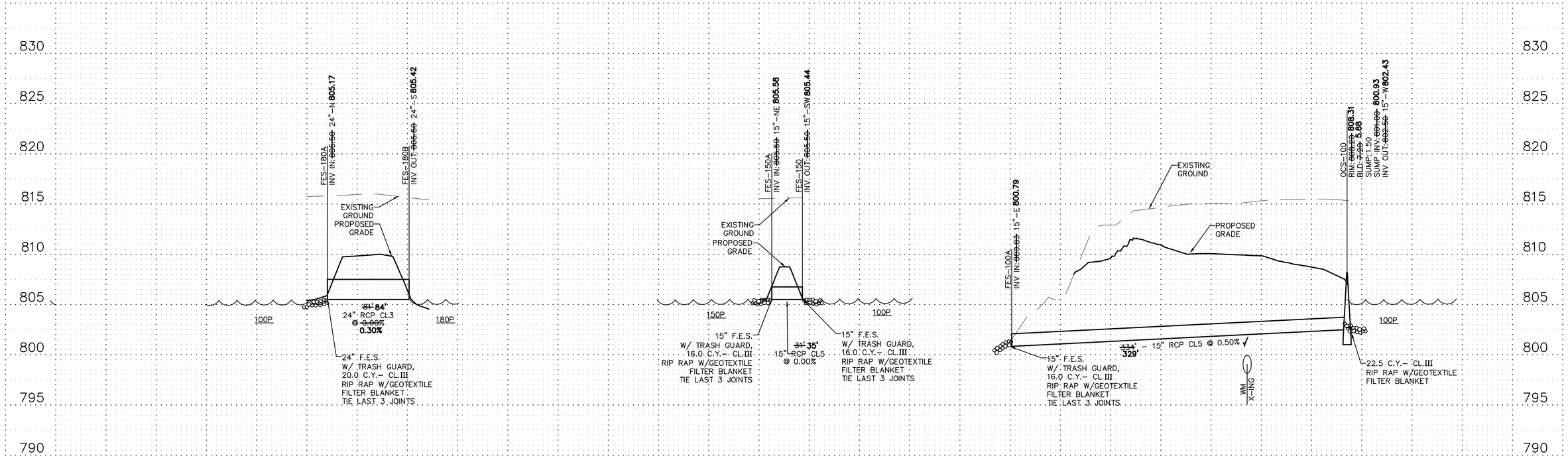

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Designed PJC/BNM
Drawn BNM/PDS

RECORD PLAN: 02-17-2023 CITY PROJECT NO. ___-___ CONTRACTOR: N.W. ASPHALT

STORM SEWER PLAN

COTTAGE GROVE 648-1 LAND, LLC
14015 SUNFISH LAKE BLVD SUITE 400
RAMSEY, MINNESOTA 55303

SETTLERS BLUFF 1ST ADDITION
COTTAGE GROVE, MINNESOTA

01-ENG-120257-SHEET-STRM

5.05 OF 51

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Boulevard Tree Planting List 2020

Overstory

Northern Pin Oak- *Quercus ellipsoidalis*

Red Oak- *Quercus rubra*

White Oak- *Quercus alba*

Swamp White Oak- *Quercus bicolor*

St. Croix Elm- *Ulmus americana 'St. Croix'*

New Horizon Elm- *Ulmus 'New Horizon'*

Accolade Elm- *Ulmus davidiana var. japonica 'Morton'*

Skyline Honeylocust- *Gleditsia tricanthos var. inermis 'Skycole'*

Hackberry- *Celtis occidentalis*

River Birch- *Betula nigra* (SINGLE STEM ONLY)

Yellowwood- *Cladrastis kentuckea*

Kentucky Coffeetree- *Gymnocladus dioicus*

London Planetree- *Platanus × acerifolia*

Tuliptree- *Liriodendron tulipifera*

Understory

Japanese Tree Lilac- *Syringa reticulata 'Ivory Silk'*

Spring Snow Crabapple- Malus *'Spring Snow'*

Ironwood- *Carpinus caroliniana*

FINDINGS OF FACT
AND
RECORD OF DECISION

FORMER MISSISSIPPI DUNES GOLF COURSE
ENVIRONMENTAL ASSESSMENT WORKSHEET

Cottage Grove
Washington County, MN

February 2022

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ATTACHMENT 4: NEW HISTORY REPORT ON WILLIAM COWAN/HERB FRITZ HOUSE

RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

FORMER MISSISSIPPI DUNES GOLF COURSE ENVIRONMENTAL ASSESSEMENT WORKSHEET

COTTAGE GROVE
WASHINGTON COUNTY, MINNESOTA

I. ADMINISTRATIVE BACKGROUND

The City of Cottage Grove (the "City") is the Responsible Governmental Unit for this project, and PulteGroup ("Pulte") is the Project Proposer. An Environmental Assessment Worksheet (EAW) has been prepared for this project ("Proposed Project") in accordance with Minnesota Rules Chapter 4410. The EAW was developed to assess the potential impacts of the project and other circumstances to determine if an Environmental Impact Statement (EIS) is needed.

The EAW was filed with the Minnesota EQB and circulated for review and comments to the required EAW distribution list. A "Notice of Availability" for the initial EAW was published in the EQB Monitor on November 30, 2021. A Notice of Availability and Press Release were published in the Saint Paul Pioneer Press and on the City of Cottage Grove website. These notices provided a brief description of the project and information on where copies of the EAW were available and invited the public to provide comments that would be used in determining the need for an EIS for the Proposed Project. The EAW was made available for public review at Cottage Grove City Hall, the City of Cottage Grove website, and the Conservation Library at 300 Nicollet Mall in Minneapolis. In addition, the City held an optional public hearing for the EAW on December 20, 2021.

All comments received during the EAW comment period were considered in determining the potential for significant environmental impacts. Comments received during the Comment Period can be found in Attachment 1 of this document.

II. RESPONSE TO COMMENTS

The public review period for the Former Mississippi Dunes Golf Course Environmental Assessment Worksheet (EAW) began on November 30, 2021 and was closed on January 6, 2022. The following responses were prepared to address questions and comments received during the public review period.

The following agencies provided comment letters, organized alphabetically:

Friends of Minnesota Scientific & Natural Areas
Friends of the Mississippi River
Metropolitan Council
Minnesota Department of Natural Resources (MnDNR)
Minnesota Office of the State Archeologist (OSA)
Minnesota Pollution Control Agency (MPCA)
Minnesota State Historic Preservation Office

National Park Service
Washington Conservation District
Washington County

The following citizens, resident and private business provided comment emails and letters, organized alphabetically:

Biron, Tyler (citizen)
Dobozenski, David (citizen)
Grams, Adam (citizen)
Krauss, Oriana Rueda (citizen)
Monjeau-Marz, Corinne L. (citizen)
Matter, Bonnie (citizen)
O'Boyle, Sharon (citizen)
Schwartz, Barb (citizen)
Schwen, Bill (citizen)
Smith, Christopher (citizen)
Tiefenbruck, Grant (citizen)
Williams, Cole (citizen)
Whaley, Brett (citizen)
Zimmer Environmental Improvement (private business)

A copy of each email/letter is included within Attachment 1. Consistent with state environmental rules, responses have been prepared below for all substantive comments received during the comment period.

The following citizen and resident comments were provided at the Public Hearing held December 20, 2021, organized alphabetically:

Matter, Bonnie (citizen)
O'Boyle, Sharon (citizen)

AGENCY COMMENTS AND RESPONSES

1. FRIENDS OF MINNESOTA SCIENTIFIC & NATURAL AREAS

Comment:

- *"…we notice an inconsistency between the text and Figure #5 Concept Sketch Plan. The text includes a plan to sell ~12 acres of land adjacent to the Grey Cloud SNA to the DNR in accordance with the City's master plan (Figure #4). However, the Concept Plan Sketch of Pulte Homes (Figure #5) shows the lots for detached homes placed right up to the current boundary of the SNA."*

Response:

The Project Proposer has entered a purchase agreement with the current property owner and has not closed on the subject property. As part of the due diligence process and negotiations, the Project Proposer is working with the Minnesota Department of Natural Resources who has indicated that they would like to purchase approximately 12-acres of the most ecologically significant area adjacent to the Scientific Natural Area. A purchase agreement between the Project Proposer and MnDNR has not been executed and therefore the area is not shown on the Concept Plan. The Concept Plan represents the maximum development scenario if an agreement cannot be reached with the MnDNR or if the MnDNR does not close on the subject 12-acres.

2. FRIENDS OF THE MISSISSIPPI RIVER

Comment:

Item 10: Geology, Soils, and Topography/Land Forms and Item 11: Water Resources

- *"The site's slope towards the river suggests that without mitigation, subsurface water runoff will move towards the river. Slope stability, water volume through the site, and impacts to neighboring sites from this water movement need to be carefully studied."*

- *"The EAW should include Minimal Impact Design Standards as a mitigation strategy for the potential project impacts to water resources. Mitigation should include a plan to incorporate stormwater treatment areas throughout the project area to treat water as closely to its source as possible, reducing the risk of harm from subsurface water movement. It will not be very feasible to pipe stormwater from one end of the site over to the other, so the project should not direct all stormwater to just one to two treatment areas as shown in Figures 4 and 5."*

Response:

Comment noted. The Project Proposer will be required to manage surface and stormwater on-site in compliance with the requirements and standards of the City and the Watershed District. Extensive stormwater and surface water modeling is a requirement of the Land Use Application process, and such modeling must include appropriate mitigative design components that demonstrate compliance with the requirements and standards (as shown on Table 6 Required Permits and Status). The use of Minimal Impact Design Standards as well as evaluation of decentralized ponding were evaluated as part of the engineering site design process. Regardless the of the final design, the Project Proposer must comply with the City's adopted standards that require all stormwater and surface water to be managed to comply

with both quantity and quality standards as detailed in Item #11(b)(ii) of the EAW. The engineering design of the surface water and stormwater management systems include ponding, pipes and vegetative buffers that all contribute to the overall function of the system.

Comment:

Item 11: Water Resources

- *"This area of the Mississippi River has high chloride levels. To mitigate harm from increased roadways and road salting in and around the project area, all chloride runoff should be captured on site. The project should also include a salt management plan to limit use of road salt on both public roadways and private driveways and sidewalks."*

Response:

Comment noted. New potential sources of chloride associated with the development include the roadways, driveways, and sidewalks during winter months where snow and ice removal are necessary. The Project Proposer has stated that the Homeowner's Association will not use salt as part of its management of community sidewalks or common areas managed by the HOA. The MnDNR suggests review of the factsheet prepared by the University of Minnesota that identifies ways for homeowners to optimize their water softener salt use[1]. However, any water softener releases are directed into the sanitary sewer system and treated at an off site regional wastewater treatment site. The City will also consider and review the information provided about how other communities are addressing high chloride levels[2]. The City will consider ways to make the factsheet and other educational resources provided by the DNR available to homeowners. The Project Proposer will prepare a salt management plan for the maintenance and management of private driveways and sidewalk that will be incorporated into the homeowner covenants which will incorporate the factsheets by reference.

The City has a chloride management system that is intended to carefully manage the use of salt on local roadways. All City plow trucks are equipped with a computerized system, Cirus Spread Smart, that has set "prescriptions" for the placement of salt. The system utilizes road temperature, classification of roadway, and type of salt to place pre-determined amounts of salt on the roadway. Each truck is linked to a computer at Public Works that uploads salt usage to allow for detailed tracking for each storm event. This system will be calibrated to the Project area and will consider the proximity of the roadways to the Mississippi River.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW must demonstrate the project's full compliance with the federal Endangered Species Act. The EAW should also include stronger analysis of rusty-patched bumble bee' habitat needs, construction timing, and protective practices that can be undertaken as mitigation strategies."*

- *"Bird Species in Greatest Conservation Need, including the endangered Henslow's sparrow, are documented to be present at the Mississippi Dunes site (not simply in the vicinity). Public Bird records by experienced birders document these rare birds' consistent presence. These birds are known to be*

[1] The factsheet can be accessed at https://www.wrc.umn.edu/sites/wrc.umn.edu/files/umnresidentialbmps_final.pdf

[2] Resource can be access at https://www.wrc.umn.edu/communitywatershed-scale

very sensitive to habitat "patch size" and edge conditions for reproductive success. The proposed project will undoubtable reduce the birds' habitat area and likely harm their already-fragile populations."

- *"The EAW should include more mitigation strategies to protect these [bird] species. Additional mitigation strategies could include timing vegetation removal and grading outside of the birds' nesting season, arranging the site plan to enable as much contiguous habitat as possible, and employing an ecologist to design vegetation that doesn't further degrade adjacent habitat at the SNA by creating improper edge conditions on the Mississippi Dunes property."*

- *"This section should also state that the project's vegetation management practices must be fully compliant with the City's Mississippi River Corridor Critical Area (MRCCA) ordinance."*

Response:
Comment noted. As stated in Item 13.d. of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources. The developed survey plan will be tailored to the existing site conditions and an acceptable development and construction plan, including appropriate mitigative strategies, will be developed to the satisfaction of the MnDNR. The Project Proposer will be required to follow the agreed to survey plan and site development and construction plan developed with the MnDNR and will be required to follow the City's MRCCA ordinance.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW should also include a plan to mitigate impacts of increased human visitorship at the neighboring SNA due to the addition of hundreds of residents next to the SNA. An increase in off-trail human traffic in the SNA could be particularly harmful because of the site's fragile geology and rare plant species. Mitigation could include design elements (such as the platting home lots, adding trail connections, and using fencing or other barriers) to block egress to the SNA outside of existing trails."*

Response:
Comment noted. The MnDNR is the owner of the SNA and is aware of the Proposed Project. The SNA is planning to purchase property from the Project Proposer to expand the SNA. The Project Proposer does not have authority to regulate the use or implement any mitigation regarding number of visitors to the SNA.

Comment:
Item 14: Historic Properties

- *"It is reasonable to believe that the Mississippi Dunes project area may also contain archaeological resources given its proximity to these documented sites [Grey Cloud Island]."*

- *"As noted in the draft EAW's correspondence with the State Historic Preservation Office, the majority of archaeological sites in the state have not been recorded. A lack of documented resources on the project site should not be taken as an assurance that such resources do not exist."*

Response:
Comment noted. The subject property was highly disturbed, including mass grading, to develop the golf course in 1995. Given the disturbed nature of the site the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas. The City will require the Project Proposer to include a reference within the construction contingency plan regarding proper steps the contractor must take if anything is found on-site once site work commences.

On Figure 5 of the EAW the area that is planned as open space, natural area, and park adjacent to the Mississippi River is the area that may not have experienced significant alterations during the golf course construction. A Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed.

Comment:
Item 15: Visual

- *"We disagree that "there are no scenic views or vistas identified in the City's MRCCA plan". The Public River Corridor View from Hazen P. Mooers Park will be affected by this project. Mississippi Dunes is clearly visible in the photo of this view included in the City's MRCCA plan. The Public River Corridor View from the Grey Cloud Dunes SNA may also be affected. A visual analysis of the project's impacts to these views should be conducted as part of this EAW and appropriate mitigation strategies employed."*

- *"The goal of mitigation should be to preserve a view as similar to the existing view as possible, prioritizing vegetative screening and minimizing the visibility of new structures. Per the DNR, strategies to mitigate visual impacts can include:*
  - *Using building materials that blend in with natural surroundings, such as green or brown materials*
  - *Placing the long axis of structures perpendicular to the river*
  - *Reducing the bulk of structures, such as by using flat roofs or reduced roof pitches*
  - *Increasing setbacks from the river"*

Response:
Comment noted. No scenic views or vistas are identified on the Proposed Project site as identified on Figure 10 Location of Public River Corridor Views, MRCCA Plan Chapter incorporated into the City's 2040 Comprehensive Plan. Development of the Project will protect the entire riverway frontage as open space, park and natural area. Views from the river to the Proposed Project site will be limited given the proposed open space and natural area use on the river frontage that extends a minimum of 300-feet from the OHWL which is consistent with the mitigative strategy identified in the comment letter "Increasing setbacks from the river."

3. METROPOLITAN COUNCIL

Comment:

- *"The staff review finds that the EAW is complete and accurate with respect to regional concerns and raises no major issues of consistency with Council policies. An EIS is not necessary for regional purposes."*

Response:
Comment noted.

4. MINNESOTA DEPARTMENT OF NATURAL RESOURCES (MnDNR)

Comment:
Item 6: Project Description

- *"…Avoidance and survey requirements will need to be met before any grading of the site or tree removal can proceed. Species-specific work exclusion dates and survey timeframes will affect the timing of construction. Please consult with the Endangered Species Environmental Review Coordinator…"*

Response:
Comment noted. As noted in Item 13.d. of the EAW the Project Proposer will work with a qualified ecologist to develop a survey plan that is acceptable to the MnDNR.

Comment:
Item 6: Permits and Approvals Required

- "*Table six should also note that a DNR Takings Permit may be necessary if state-listed threatened and endangered species will be impacted as the result of this project."*

- *"Table six should note the need for the developer and/or the City of Cottage Grove to obtain a DNR Water Appropriation Permit should there be a need for construction dewatering of water (either surface or ground water) in volumes exceeding 10,000 gallons per day, or one million gallons per year."*

Response:
Comment noted. The Table has been updated to identify the DNR Takings Permit and DNR Water Appropriation Permit that must be obtained if necessary.

Comment:
Item 9: Land Use

- *"We appreciate the effort on the part of the City of Cottage Grove to protect the open space along the Mississippi River Corridor by creating a park to maintain habitat and enable the public's access to the river."*

- *"The EAW should provide additional information to discuss whether the project complies with the requirements of the Mississippi River Critical Corridor Area (MRCCA) plan and zoning regulations."*

- *"The DNR supports the development of a park that will allow the community to access and engage with the Mississippi River and the unique ecosystem of the area. Please include the SNA in trail planning in order to ensure that trail locations meet the management needs of all parties and that encroachment onto the SNA is prevented."*

Response:

Comment noted. As noted in Item 9, the Proposed Project is located entirely within the MRCCA overlay district, and the proposed development area is generally within the Separated from River (CA-SR) sub-district. Given the Proposed Project location within the MRCCA overlay, the Project is subject to the City's ordinance adopted in December 2021. A full review for compliance with the ordinance will be completed with the Land Use Application process as required and shown on Table 6.

Comment:

Item 10: Geology, Soils and Topography/Land Forms

- *"Part of the project area is located in a region prone to surface karst feature development. This was confirmed by project borings that encountered soft limestone bedrock near the surface. Great care should be taken to avoid releasing any pollutants in this area that could quickly reach groundwater. We appreciate that care will be used in locating stormwater features. We recommend that site grading also avoids exposing karst-prone bedrock."*

Response:

Comment noted. The Project Proposer will develop a grading plan that avoids exposing karst-prone bedrock. The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process. Such mitigative strategies, may include, but are not limited to following the guidelines outlined in the Minnesota Pollution Control Agencies "Minnesota Stormwater Manual" that provides specific guidance for karst areas.

Comment:

Item 11: Water Resources

- *"Please note that if the private wells are not going to be used, then they are required to be sealed rather than capped."*

Response:

Comment noted.

Comment:

Item 11: Water Resources

- *"The planned increase in impervious surfaces will also increase the amount of road salt used in the project area. Chloride released into local lakes and streams does not break down, and instead accumulates in the environment, potentially reaching levels that are toxic to aquatic wildlife and plants. Consider promoting local business and City participation in the Smart Salting Training offered through the Minnesota Pollution Control Agency."*

Response:
Comment noted. The City will consider participation in the Smart Salting Training offered through the Minnesota Pollution Control Agency. The City will also review the sample ordinance provided by MnDNR regarding chloride use. The Project Proposer has stated that the Homeowner's Association will not use salt as part of its management of community sidewalks or common areas managed by the HOA. As previously noted, the City has a chloride management system that is intended to carefully manage the use of salt on local roadways. All City plow trucks are equipped with a computerized system, Cirus Spread Smart, that has set "prescriptions" for the placement of salt. The system utilizes road temperature, classification of roadway, and type of salt to place pre-determined amounts of salt on the roadway. Each truck is linked to a computer at Public Works that uploads salt usage to allow for detailed tracking for each storm event. This system will be calibrated to the Project area and will consider the proximity of the roadways to the Mississippi River.

Comment:
Item 11: Water Resources

- *"The DNR recommends that stormwater be used for irrigating the landscaping…"*

Response:
Comment noted. The Project Proposer will explore the feasibility of using stormwater for irrigation of landscape on the Proposed Project site post-development.

Comment:
Item 11: Water resources

- "*We recommend using BWSR-approved, native seed mixes for seeding stormwater features, project landscaping, and soil stabilization. Due to the proximity to the SNA, please make sure that all seed mixes are free of noxious weeds and invasive species."*

Response:
As stated in Item 13(d) the Project Proposer will seed all stormwater management areas using the BWSR or MnDOT native seed mixes and will be free of noxious weeds and invasive species.

Comment:
Item 11: Water Resources

- *"Stormwater from the development should not be directed towards or allowed to pool on the current or future SNA."*

Response:
All stormwater and surface water management must be managed on the Proposed Project site to comply with the City and South Washington Watershed District rules. Stormwater will not be directed or allowed to pool on the current or any future land owned by the SNA.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"This section mentions the previous agricultural and golf course uses of parts of the project area, but fails to identify that the area planned for development is mapped as a Minnesota Biological Survey (MBS) Site of High Biodiversity Significance as well as a DNR Native Plant Community (NPC). Despite the previous uses and disturbance, sections of the project area within the golf course were left intact and may yet contain rare plants and valuable wildlife habitat."*

- *"The project proposes to avoid impacts to the Rusty-patched bumble bee, Leonard's skipper, Regal fritillary and the Monarch butterfly by completing the vegetation disturbance early in the 2022 season. Due to the potential need for plant surveys during the growing season, these mitigation measures are unrealistic. Permanently converting even degraded grassland to impervious surfaces will remove habitat within the project area and should be considered a long-term impact. Because the Rusty-patched bumble bee is a federally-listed as endangered, please coordinate with the U.S. Fish and Wildlife Service regarding mitigation for long-term impacts to this species."*

- *"The summary of DNR's requirements should mention **that tree/shrub removal is prohibited from April through August 15th** to avoid impacting endangered bird species that have been documented in the direct vicinity of the project. Please coordinate with DNR if this is not feasible as bird surveys may be necessary prior to disturbance."*

Response:
Comment noted. As identified in Item 13(d), and in response to the MnDNR NHIS correspondence letter dated November 19, 2021, the Project Proposer has hired a qualified ecologist to work with the MnDNR to develop a site survey process that will comply with the requirements of the MnDNR Land Use Fish and Wildlife Service. The Project Proposer intends to work with the MnDNR to establish a reasonable process for survey and eventual site development and construction. Appropriate permits, including any required DNR Takings Permits will be obtained.

Comment:
Item 16: Air

- *"If water is taken from the Mississippi River for controlling dust, then the use of more than 10,000 gallons of water in a day must be approved under a DNR Water Appropriation Permit."*

- *"Please do not use products that contain chloride for dust control."*

Response:
Comment noted. Appropriate Permits will be obtained as previously noted. The Project Proposer will not use products that contain chloride for dust control during the site development and construction process.

Comment:
Item 18: Transportation

- *"The railroad corridor runs through the SNA directly adjacent to the project area is owned and operated by BNSF Railway. Please include them in any planning that involves railroad crossings."*

Response:
The Project Proposer is working with the BNSF Railway to obtain proper permits for crossing of the railroad right of way. All appropriate permits will be obtained as part of the site development process.

5. MINNESOTA OFFICE OF THE STATE ARCHEOLOGIST

Comment:
Item 14: Historic Properties

- *". . . there are no previously recorded archaeological sites, archaeological site leads, or burials within the proposed project area. However, the project is situated with a district replete with archaeological and cemetery sites and is adjacent to the Mississippi River. Therefor a phase I archaeological reconnaissance conducted by a qualified archaeologist is recommended."*

Response:
Comment noted. The subject property was highly disturbed, including mass grading, to develop the golf course in 1995. Given the disturbed nature of the site the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas. The City will require the Project Proposer to include a reference within the construction contingency plan regarding proper steps the contractor must take if anything is found on-site once site work commences.

On Figure 5 of the EAW the area that is planned as open space, natural area, and park adjacent to the Mississippi River is the area that may not have experienced significant alterations during the golf course construction. A Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed.

6. MINNESOTA POLLUTION CONTROL AGENCY (MPCA)

Comment:
Item 7: Cover Types

- *"The cover types listed in the table under Item 7 do not seem to portray the existing site conditions accurately. For example, under open space, zero acres are listed. It would seem that a golf course would have a significant amount of open space."*

Response:
The land cover types were obtained from the Minnesota Land Cover Classification System (MLCCS) shapefile prepared by the Minnesota Department of Natural Resources (MnDNR). The City acknowledges that open space or natural areas may exist within the footprint of the former golf course; however, the MnDNR prepared portions of the MLCCS using aerial analysis that identified the manicured golf course (impervious surface) as the dominant land cover. The EAW Guidelines provided by the Minnesota Environmental Quality Board (EQB) establish the MLCCS as an appropriate publicly available data set to prepare the response to EAW Item 7. The MLCCS classified the subject site as predominantly 5-10% impervious which correlates to the landscape/lawn coverage associated with the golf course.

Comment:

Item 8: Permits and Approvals Required

- *"It may be necessary to obtain a Sanitary Sewer Extension Permit from the MPCA prior to construction."*

Response:

Table 6: Required Permits and Status has been updated to include the Sanitary Sewer Extension Permit, to be obtained if necessary.

Comment:

Item 11: Water Resources

- *"This section mentions the additional work and utilities that must be extended to serve the Project, but there are no details about that work in the EAW. There was a mandatory EAW completed for the Cottage Grove South District Trunk Sewer earlier this year. If that sewer needs to be extended again for this Project, a separate mandatory EAW may be required. This related work, and whether a mandatory EAW is needed for the extension of the sewer to this site, needs to be discussed in more detail."*

Response:

The Subject Project does not require the extension of the Cottage Grove South District Trunk Sewer. Any future extension of the South District Sanitary Sewer past the Phase 1 completed in 2021 would be contained within the City's approved Business Park AUAR boundary.

Comment:

Item 11: Water Resources

- *"The Project proposes disturbance of 110 acres of the 164-acre site and will discharge stormwater to the Mississippi River, which has construction-related impairments. Because the Project will disturb 50 or more acres, the Stormwater Pollution Prevention Plan (SWPPP) will need to be submitted for review and approval by MPCA prior to obtaining National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (CSW Permit) coverage."*

Response:

Comment noted. Table 6 in the EAW identifies that a SWPPP is required.

Comment:

Item 11: Water Resources

- *"The EAW mentions three existing stormwater ponds on the site to be utilized for rate control. The EAW also mentions use of infiltration basins for volume control unless not feasible and that the City allows the ability to use off site mitigation credits to meet volume control requirements if onsite Best Management Practices (BMPs) are not possible. The EAW does mention the presence of hydric soils and karst features at the site that may prohibit infiltration but also discusses use of filtration and bio filtration areas for meeting volume control requirements. However, filtration may not be considered to be a method of volume control by the CSW Permit."*

- *"The Proposer is strongly encouraged to consider opportunities upgradient of hydric areas for bioinfiltration and use of green infrastructure practices to reduce stormwater runoff and provide climate*

resilience to increasing rainfall. Consider also reducing pervious surfaces contributing to runoff by constructing narrower streets or using pervious pavements. Pervious pavements would also help to reduce need for winter salting and resulting chloride pollution from the new development."

Response:

Comments noted. The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process. The Project Proposer will implement BMPs in its site development activities and will explore opportunities to use pervious pavements and other best practices in the development post construction. The plan for stormwater management will be developed to address and consider the recommendations as noted, and will refer to the guidelines outlined in the Minnesota Pollution Control Agency's "Minnesota Stormwater Manual[3].

Comment:

Item 12: Contamination/Hazardous Materials/Wastes

- *"The Project is located in an area of Washington County near areas that have extensive groundwater contamination from multiple sources. Furthermore, these are located in areas where the groundwater is highly vulnerable to contamination from the surface because there is relatively little overlying fine-grained protective soil material."*

Response:

Comment noted. The City and Project Proposer understand that this area is in a sensitive area known to have extensive groundwater contamination. All structures must be served by municipal water services to ensure a safe water supply. Further, mitigative measures must be incorporated into the site development process to ensure that post-development conditions do not further exacerbate or contribute further to the known groundwater contamination. The Project Proposer will coordinate with the MPCA on safe handling and disposal of any contamination and hazardous materials found on the site prior and during construction.

Comment:

Item 12: Contamination/Hazardous Materials/Wastes

- *"Please note that golf courses have the potential for contamination from past pesticide use (including mercury) and from past storage and handling of pesticides and fertilizers."*

[3] https://stormwater.pca.state.mn.us/index.php/Main_Page

- *"The operation of heavy equipment in and near lakes, streams and wetlands obligates the project proposers to develop a plan for managing fuels and lubricants, including a plan of action to implement in the event of spills. The Project proposer and their contractors should be prepared to respond to spills and to recover and contain spilled material as quickly and thoroughly as possible."*

Response:
Comment noted. The Project Proposer will develop a construction contingency plan for development of the Proposed Project site. The Construction Contingency Plan must include and address the action to be taken if areas of significant contamination are identified, as well as include a plan for the management of fuels and lubricants and plan of action to implement in the event of spills. The Project Proposer will coordinate with the MPCA on safe handling and disposal of any contamination and hazardous materials found on the site prior and during construction.

7. MINNESOTA STATE HISTORIC PRESERVATION OFFICE

Comment:
Item 14: Historic Properties

- *"Due to the nature and location of the proposed project, we recommend that a Phase I archaeological survey be completed."*

Response:
Comment noted.
The subject property was highly disturbed, including mass grading, to develop the golf course in 1995. Given the disturbed nature of the site the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas. The City will require the Project Proposer to include a reference within the construction contingency plan regarding proper steps the contractor must take if anything is found on-site once site work commences.

On Figure 5 of the EAW the area that is planned as open space, natural area, and park adjacent to the Mississippi River is the area that may not have experienced significant alterations during the golf course construction. A Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed.

8. NATIONAL PARK SERVICE

Comment:
Item 7: Cover Types

- *"Table 5 states there will be an increase of 27.8 acres of open/natural space, not including a single acre before the development. This is misleading as the majority of the 164 acres has become more natural since it has been vacant. Incorporating established natural cover types into the development's design would be better than demolishing this established habitat. This is especially true on the western side of the development where dry tall grasses and forests tie into the Grey Cloud Dunes Scientific and Natural Area (SNA). These established natural areas should be preserved as natural extensions of the SNA."*

Response:

The land cover types were obtained from the Minnesota Land Cover Classification System (MLCCS) shapefile prepared by the Minnesota Department of Natural Resources (MnDNR). The City acknowledges that open space or natural areas may exist within the footprint of the former golf course; however, the MnDNR prepared portions of the MLCCS using aerial analysis that identified the manicured golf course (impervious surface) as the dominant land cover. The EAW Guidelines provided by the Minnesota Environmental Quality Board (EQB) establish the MLCCS as an appropriate publicly available data set to prepare the response to EAW Item 7. The MLCCS classified the subject site as predominantly 5-10% impervious which correlates to the landscape/lawn coverage associated with the golf course.

The Golf Course use is the most recent use and study of the land for development has been underway since the golf course was shuttered prior to the 2018 season. As stated in Item 6(c) of the EAW, the Project Proposer is working with the MnDNR on the purchase of approximately 12 acres of land on the eastern side of the Project area where the most significant natural areas abut the Grey Cloud Dunes Scientific Natural Area (SNA).

Comment:

Item 11: Water Resources

- *"We would like more attention brought to the fact that this stretch of the Mississippi River, and the Mississippi Dunes site, are also part of the Mississippi National River and Recreation Area (NRRA). Congress established the Mississippi NRRA in 1988 to preserve, protect, and enhance the significant values of the Mississippi River Corridor in the Twin Cities metropolitan area. The Mississippi NRRA shares a boundary with the Mississippi River Corridor Critical Area (MRCCA), and we appreciate that the proposed development will adhere to updated MRCCA ordinances being adopted by the City of Cottage Grove. The national significance of this stretch of the Mississippi River and its resources should be included in this section."*

Response:

Comment noted. The Proposed Project Site is within the Mississippi National River and Recreation Area (NRRA), and the NRRA boundary is consistent with the MRCCA boundary. The NRRA is a federal designation that is further supported by the MRCCA. The NRRA has designated this area as an area of critical concern and seeks to protect the Mississippi River. The City adopted the MRCCA ordinance in December 2021 which is consistent with, and supports, the requirements of both the NRRA and MnDNR. The Proposed Project will be required to comply with the regulations and standards of the City's adopted MRCCA ordinance.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Stating that the heavy use of pesticides and herbicides will decrease is misleading since there has been no active management at the site. Disturbance of the natural spaces and addition of a housing development will likely increase this level of activity from present use. Buffers around sensitive areas should be implemented to prevent conflicting uses from the development and should be encouraged*

wherever possible. Drift and runoff from chemicals and fertilizers from lawn care could impact habitat on the neighboring SNA given the proximity of housing to the SNA."

Response:

Comment noted. The use of the site through 2017 was for a golf course, and the majority of the Proposed Project site was heavily landscaped and manicured. The golf course included the heavy use of pesticides and herbicides that often affects the land for several years after application. The continued use of the site as a golf course would have resulted in the continued heavy use of pesticides and herbicides. After the closure of the golf course it was assumed that the use of the site would transition to either housing or some other development type that would not include heavy use of herbicides and pesticides. As indicated in previous responses, the Project Proposer is working with the MnDNR to sell approximately 12 acres of land adjacent to the SNA to further protect and enhance the SNA. Additionally, the entire river frontage will be protected as open space, park land and natural area as shown on Figure 5: Concept Plan of the EAW. The land adjacent to the Mississippi River as well as the potential expansion of the SNA will provide a buffer between the proposed development and these sensitive natural areas.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Buffering would also decrease other negative impacts from human use like erosion from increased foot traffic in natural areas and wildlife harassment from pets and humans. While the SNA is open to the public, it is not a public park that is designed to handle significant human activity, especially given the sensitive habitats located at Grey Cloud Dunes SNA. Housing placed on the boundary will likely increase human use and degradation of the significant natural resources of the SNA."*

Response:

Comment noted. The Project Proposer will be cognizant of the distinction that the SNA is not a public park. No paved trails or other direct connections between the housing and/or lots will be provided from the Proposed Project development to the SNA.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"We recommend that the City of Cottage Grove follow the recommendations in the Natural Heritage Review from the MN Department of Natural Resources in Appendix B. There are several rare species found within the search area for the Mississippi Dunes site. A qualified surveyor should conduct a habitat assessment prior to construction to prevent any damage to the rare and sensitive resources."*

Response:

Comment noted. The Project Proposer will follow the recommendations as stated in the NHIS Review contained in Appendix B of the EAW. In compliance with the recommendations, Item 13(d) clearly states that the Project Proposer will hire a qualified ecologist to develop a Survey Plan for the site to conduct the habitat assessment.

Comment:

Item 15: Visual

- *"We disagree with the assessment that there are no scenic views or vistas identified in the MRCCA plan. There are two Public River Corridor Views (PRCV) within the immediate area of the Mississippi Dunes site. One is located at Hazen P. Mooers Park that overlooks the southern portion of the Mississippi Dunes site and the north east portion of Grey Cloud Island. Set back of the development will decrease the impacts to this PRCV. The other PRCV is from the Grey Cloud Dunes SNA. While there are no overlooks or established trails in the SNA, the elevated and open bluffs of the SNA provide striking views of the natural areas around the SNA. Removal of vegetation for the development will impact the natural views from the SNA. Maintaining existing vegetation and the addition of vegetation within the housing development may reduce impacts from the SNA's PRCV."*

Response:

Comment noted. No scenic views or vistas are identified on the Proposed Project site as illustrated on Figure 10 Location of Public River Corridor Views, MRCCA Plan Chapter incorporated into the City's 2040 Comprehensive Plan. Development of the Proposed Project will protect the entire riverway frontage as open space, park and natural area. The Project Proposer is working with the MnDNR on the purchase of approximately 12 acres that will further extend the SNA along the eastern boundary of the site. Vegetation within this area will be protected and maintained.

9. WASHINGTON CONSERVATION DISTRICT

Comment:

Item 6: Project Description

- *"The Project Proposer's Concept Sketch Plan (Appendix A Figure 5) has not been inserted at a legible resolution, does not include a legend or key to features, and does not appear to include the 12-acre addition to Grey Cloud Dunes SNA. Please provide a revised Concept Sketch Plan for interpretability and agreement with the proposed Master Plan."*

Response:

Comment noted. Figure 5 Concept Plan appears legible in the package reviewed. A separate figure has been uploaded to the City's website for reference. The Concept Plan does not identify the approximately 12-acres of land to be purchased by the MnDNR because a formal purchase agreement has not been executed. The Concept Plan represents the maximum development scenario if an agreement cannot be reached with the MnDNR.

Comment:

Item 7: Cover Types

- *"Although a large portion of the site has been disturbed and is now dominated by non-native cover types, correspondence with the Minnesota DNR located in Appendix B notes the possibility of existing and intact native plant communities in isolated areas. Further survey work is needed to identify areas containing rare or sensitive natural features."*

Response:

Comment noted. As stated in Item 13.d. of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources.

Comment:

Item 9: Land Use

- *"WCD encourages the Project Proposer to maximize the amount of restored or undeveloped natural space within the project area to protect and enhance the scenic, ecological, cultural, and recreational value of the corridor. The Project Proposer should describe the steps that will be taken to protect Priority Conservation Areas (PCA's), including bluff and shoreline impact zones, significant existing vegetation stands, or native plant communities."*

Response:

Comment noted. The Project Proposer is working with the City of Cottage Grove, the MnDNR and other agencies to determine the areas of highest priority and developed the Concept Plan in response to the City's adopted Master Plan. Further technical details regarding bluff and shoreline impact zones, setbacks, etc., will be reviewed and evaluated as part of the Land Use Application process.

Comment:

Item 10: Geology, Soils and Topography/Landforms

- *"The Project Proposer states there are no known sinkholes, limestone formations, or karst conditions within the site, though there are several known formations in the area (Figure 14 of the EAW). The Preliminary Geotechnical Evaluation Report found near-surface, "highly weathered" limestone bedrock and near-surface groundwater features at multiple boring locations across the site. More information is needed to evaluate potential impacts to surface and groundwater features in areas that will be disturbed."*

Response:

Comment noted. The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process.

Comment:

Item 11: Water Resources

- *"In Section 11.a.i The Project Proposer states, "Segments of the waterway are identified on the MPCA 303d Impaired Water List, but Moers Lake, Grey Cloud Channel and Grey Cloud Slough are of 3 not listed on the Impaired List which are the waterbodies within 1-mile of the Project Area" (Page 17 of the EAW). The segment of the Mississippi River between Upper St Anthony Falls and the St Croix River is*

listed for several impairments, including nutrients and TSS, PFOS, PCBs, and mercury. This segment of the Mississippi River is inclusive of Grey Cloud Channel, Grey Cloud Slough, and Mooers Lake. Discussion of these impairments must therefore be identified and discussed in this section.
A 2015 study completed by the Metropolitan Council found high chloride (Cl) concentrations in Pool 2 of the Mississippi River near Grey Cloud Island. The Project Proposer should address new potential sources of chloride associated with development (e.g. road salts or water softener brine) and propose measures for reducing chloride usage and preventing chloride contamination of wetlands and/or receiving waterbodies."

Response:
Comment noted. The information provided in this comment does not align with the information available on the Minnesota Pollution Control Agency (MPCA) Impaired Water List and through the mapping portal. The EAW Guidelines indicate that the MPCA's 303d Impaired Water List is the appropriate resource to use for the response to Item 11.a.i. (See Attachment 2). The information shown on the map is consistent with the response prepared in Item 11.a.i., and no impaired waters are located within 1-mile of the Project's southern boundary.

New potential sources of chloride associated with the development include the roadways, driveways, and sidewalks during winter months where snow and ice removal are necessary. The MnDNR suggests review of the factsheet prepared by the University of Minnesota that identifies ways for homeowners to optimize their water softener salt use[4]. However, any water softener releases are directed into the sanitary sewer system and treated at an off site regional wastewater treatment site. The City will also consider and review the information provided about how other communities are addressing high chloride levels[5]. The City will consider ways to make the factsheet and other educational resources provided by the DNR available to homeowners. The Project Proposer has stated that the Homeowner's Association will not use salt as part of its management of community sidewalks or common areas managed by the HOA.

As previously noted, the City has a chloride management system that is intended to carefully manage the use of salt on local roadways. All City plow trucks are equipped with a computerized system, Cirus Spread Smart, that has set "prescriptions" for the placement of salt. The system utilizes road temperature, classification of roadway, and type of salt to place pre-determined amounts of salt on the roadway. Each truck is linked to a computer at Public Works that uploads salt usage to allow for detailed tracking for each storm event. This system will be calibrated to the Project area and will consider the proximity of the roadways to the Mississippi River.

Additionally, the Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements
- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan

[4] The factsheet can be accessed at https://www.wrc.umn.edu/sites/wrc.umn.edu/files/umnresidentialbmps_final.pdf

[5] Resource can be access at https://www.wrc.umn.edu/communitywatershed-scale

- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Comment:

Item 13: Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources

- *"Section 13a-b of the EAW provides an NHIS summary of "rare species or significant natural features" documented within 1-mile of the project area. This section also identifies endangered, threatened, or special concern species documented on site or likely to occur nearby. This list is by no means exhaustive (as noted in Appendix B), and there are many other Species in Greatest Conservation Need that are known to occur in the area, including dickcissel, bobolink, American kestrel, eastern meadowlark, and others (as documented by the 'Grey Cloud Dunes SNA Bird Checklist' and eBird reports for Grey Cloud Dunes SNA). Further survey work is needed to assess the presence/absence of sensitive ecological features within the project site and to assess the risks associated with site development."*

Response:

Comment noted. As stated in Item 13(d) of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources.

Comment:

Item 14: Historic Properties

- *"The Project Proposer acknowledges the site's proximity to several historic structures and archeological sites via MNSHPO correspondence located in Appendix B. These sites include the NRHP-listed Schilling Archaeological District (STN: 21WA1) and Michaud-Koukal Mounds (21WA2), Grey Cloud Town Site (21WA48), and the NRHP-listed Grey Cloud Lime Kiln site. Past archeological surveys of the Spring Lake/Grey Cloud Island area have revealed many other historically significant sites along the corridor, some dating as far back as the Early Woodland period (Fleming et al 2018; Anfinson 2003). The Washington Conservation District supports further investigation (with reference to Appendix B of the EAW) by the SHPO and Tribal Historic Preservation Offices to fully assess the project area's potential to contain sites with historic or archeological significance."*

Response:

Comment Noted.

The subject property was highly disturbed, including mass grading, to develop the golf course in 1995. Given the disturbed nature of the site the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas. The City will require the Project Proposer to include a reference within the construction contingency plan regarding proper steps the contractor must take if anything is found on-site once site work commences.

On Figure 5 of the EAW the area that is planned as open space, natural area, and park adjacent to the Mississippi River is the area that may not have experienced significant alterations during the golf course construction. A Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed.

Comment:

Item 15: Visual

- *"Light pollution is another environmental impact worthy of consideration for this project given the site's adjacency to Grey Cloud Dunes SNA and other natural areas. Light pollution has the potential to disrupt nesting and mating patterns for many wildlife species. The Project Proposer should address how the lighting plan may be designed to mitigate impacts to wildlife, particularly migratory bird species."*

Response:

Comment noted. All proposed lighting of the proposed Project must follow the City's adopted lighting standards. The park, open space and natural area adjacent to the Mississippi River will be publicly owned property and a lighting plan will be developed once uses within the areas are established.

10. WASHINGTON COUNTY

Comment:

Item 10: Geology, Soils and Topography/Landforms

- *"As stated in the EAW, near-surface, highly-weathered limestone bedrock (7-18 feet below surface) and near-surface groundwater features (2-19.5 feet below surface) are present at the project site. Although there are no known karst features at the project site, the previously mentioned site features indicate the potential for groundwater impacts and should be considered and monitored closely during project implementation."*

Response:

Comment noted. The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process.

Comment:

Item 11: Water Resources

- *"…additional analysis is needed related to potential chloride (Cl) sources and mitigation measures including reducing and preventing Cl contamination of wetlands and other receiving waterbodies."*

Response:
Comment noted. New potential sources of chloride associated with the development include the roadways, driveways, and sidewalks during winter months where snow and ice removal are necessary. The Project Proposer has stated that the Homeowner's Association will not use salt as part of its management of community sidewalks or common areas managed by the HOA. The MnDNR suggests review of the factsheet prepared by the University of Minnesota that identifies ways for homeowners to optimize their water softener salt use[6]. However, any water softener releases are directed into the sanitary sewer system and treated at an off site regional wastewater treatment site. The City will also consider and review the information provided about how other communities are addressing high chloride levels[7]. The City will consider ways to make the factsheet and other educational resources provided by the DNR available to homeowners.

As previously noted, the City has a chloride management system that is intended to carefully manage the use of salt on local roadways. All City plow trucks are equipped with a computerized system, Cirus Spread Smart, that has set "prescriptions" for the placement of salt. The system utilizes road temperature, classification of roadway, and type of salt to place pre-determined amounts of salt on the roadway. Each truck is linked to a computer at Public Works that uploads salt usage to allow for detailed tracking for each storm event. This system will be calibrated to the Project area and will consider the proximity of the roadways to the Mississippi River. The City will also review the sample ordinance provided by MnDNR regarding chloride use.

Comment:
Item 11: Water Resources

- "*All wells located during project construction shall be sealed according to Minnesota Department of Health regulations to mitigate potential groundwater contamination."*

- *"There are four known Subsurface Sewage Treatment Systems (SSTS) within the project area, there are possibly others. All septic systems, tanks, or components on the property must be identified and properly abandoned. A county permit for septic system abandonment is required and a Minnesota Pollution Control Agency abandonment form must be submitted to the Washington County Department of Public Health and Environment. "*

Response:
Comment noted. Any wells found that have not been sealed, will be sealed according to the Minnesota Department of Health regulations. All septic systems, tanks, and components will be properly abandoned. Table 6 is corrected to reflect that the permit must be obtained.

Comment:
Item 12: Contamination/Hazardous Materials/Wastes

[6] The factsheet can be accessed at https://www.wrc.umn.edu/sites/wrc.umn.edu/files/umnresidentialbmps_final.pdf

[7] Resource can be access at https://www.wrc.umn.edu/communitywatershed-scale

- *"All solid and hazardous waste, including waste resulting from historic use stock piling of material and/or remnants of the club house that burned down must be removed from the property, and managed at an appropriately permitted waste disposal facility."*

Response:
Comment noted.

Comment:
Item 12: Contamination/Hazardous Materials/Wastes

- *"A State Superfund project adjacent to the project site was not identified in the Environmental Assessment Worksheet. According to a data search in the "What's in My Neighborhood" interactive map, property east of the redevelopment site now owned by the Minnesota Department of Natural Resources was historically used for disposal of wastes from refinery operations, including solid waste, asphalt and barrels containing asphalt, oil emulsion, and calcium carbonate."*

Response:
Comment noted. Figure 11. MPCA "What's in My Neighborhood?" Map, Appendix A of the EAW identifies the Ashland Oil-Cottage Grove Site which is identified as an Investigation and Cleanup Site.

Comment:
Item 12: Contamination/Hazardous Materials/Wastes

- *"The Minnesota Department of Agricultural became aware of high levels of certain heavy metals in golf courses from normal, legal use of certain herbicides and fungicides use. As stated in the EAW, the primary past use of the project area for a golf course included heavy pesticide use to manage the manicured greens and fairways. The potential for contamination should be considered around the boxes, greens and near pesticide mixing, loading and storage areas."*

Response:
Comment noted.

Comment:
Item 18: Transportation

- *"…there are differences between Figure 4 and Figure 5 in the way that the north access location ties into the surrounding transportation system. The county prefers the configuration depicted in Figure 4 as we feel it can accommodate an interim access with a realigned Grey Cloud Island Trail, and be the best long-term design for the future arterial route. When considering the location of this access, please note that sight lines are reduced the farther north it is proposed to be located, and it will be imperative to ensure that sight lines are adequate."*

Response:
Comment noted. The final proposed roadway alignment is reflected in Figure 4 in the EAW.

Comment:
Item 18: Transportation

- *"The county is interested in learning what any remnant property in the northwest corner of the site is proposed for, and would be interested in any opportunity to access that area for drainage when the future county arterial is built. Alternatively, given the scope of change in drainage patterns associated with the proposed project, Washington County would like to partner on a regional drainage opportunity to accommodate the increased runoff that will be generated by the future county arterial and the proposed development. "*

  Response:
  Comment noted.

Comment:
Item 18: Transportation

- *"The county appreciates the role that the connections between the Mississippi River Trail Bikeway, Central Greenway, and Community Trails will play in establishing those connections, as well as the City Code requirement for eight-foot-wide pedestrian trails on streets with blocks longer than 900-feet. With bicycle and pedestrian facilities proposed for the future arterial route, the county will be interested in an opportunity to review and provide comment on the Concept Plan once it is updated to meet this standard to ensure that adequate, non-motorized public access to the park assets is provided."*

  Response:
  Comment noted. The City will coordinate with Washington County during the Land Use Application process to review the preliminary plat including the proposed trail system throughout the Project.

Comment:
Item 18: Transportation

- *"The results of the coordination between the City and county identified 180 feet of right-of-way to be dedicated with the project. The county is satisfied with that amount of right-of-way and expects it to be dedicated with the project."*

  Response:
  Comment noted.

CITIZEN COMMENTS AND RESPONSES

11. BIRON, TYLER (CITIZEN)

Comment:

Item 9: Land Use

- *"Will you PLEASE not allow the medium density housing....which is apartments or townhomes?...proposed on 103rd st s. It would be directly across the road from our property. If we have to accept this development and all the people, noise, lights, etc that are going to come with it could you at least not allow this in the development plan a give my family and a buffer?*

Response:

Comment noted. The Proposed Project has not been approved and is subject to the City of Cottage Grove's Land Use Application process as identified in Table 6. A public hearing will be held to review the Proposed Project and public testimony will be considered in the approval process.

12. DOBOZENSKI, DAVID (CITIZEN)

Comment:

Item 20: Other Potential Environmental Effects

- *"Are they going to clear cut all the trees, so they can level the land for water and sewer lines…"*

Response:

The development area of the Potential Project site will be mass graded to install both public and private improvements. Public improvements will include the installation of roadways and water and sewer lines. Areas not within the development area, including some of the open space and natural area along the southern property line as shown in Figure 5 will largely retain the existing vegetation.

Comment:

Item 11: Water resources

- *"If our wells are affected or contaminated is the City or developer responsible."*

Response:

The City is aware that some existing wells in the area have been contaminated by regional chemical discharges. As part of the Proposed Project, an uncontaminated City potable water main will be brought to the area to serve the new homes. In the future, if desired by neighbors, the potential exists to connect to City water. The Proposed Project is not anticipated to cause or affect the existing wells in the area and appropriate mitigation efforts will be implement regarding chloride and storm water runoff. Due to the proximity of the Project site to the Mississippi River, the storm water quality/quantity rules for this project are more stringent than standard stormwater rules.

Comment:

Item 11: Water Resources

- "*Per your map the storm water is run into the freshwater spring creek that runs from the railroad track on the east to the river on the west. The creek was dam to make the ponds. Did the DNR & So. Washington Watershed ok this plan?"*

Response:
As indicated on Table 6 in the EAW, the Project Proposer must submit a full stormwater management and erosion control plan for review and approval by the City of Cottage Grove and the South Washington Watershed District (SWWD). All appropriate permits must be obtained prior to the commencement of site work.

Comment:
Item 18: Transportation

- *"When they realign Grey Cloud Trail & 103rd Street, who will pay for it. We just paid to have Grey Cloud Trail rebuilt."*

Response:
The Project Proposer is working with the City of Cottage Grove and Washington County on the realignment of Grey Cloud Trail through the northwest corner of the site. The realignment shown on Figure 5. Concept Plan through the Project site will be paid for, and is the responsibility of, the Project Proposer.

13. GRAMS, ADAM (CITIZEN)

Comment:
Item 6: Project Description

- *"Page 6. Section 6. Project Description, Subpart b: "The amount of open space to be included in the area is yet to be determined. Any improvements to publicly dedicated open space will be at the discretion of the governmental organization with ownership of the area and such potential future improvements are outside the scope of this EAW."* This statement seems ambiguous. If the area is part of the project area, should it also be considered as part of a "complete project*"?"*

Response:
Comment noted. Figure 5 Concept Sketch Plan is a concept plan and not full engineering plans for the Proposed Project. As noted in Table 6 of the EAW, the Project Proposer must apply for several Land Use Applications including Preliminary and Final Plat that will identify the exact acreages of each uses. The Project Proposer is working with the City of Cottage Grove and the MnDNR to identify the exact location and size of the park, open space and natural area associated with the Project. It is the Project Proposer's intention to sell land to the City and MnDNR. How the agencies use the land purchased is outside of the control of what the Project Proposer can control. As such, the areas identified as open space, park or natural area are outside the scope of this study.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"What is the plan to protect the adjacent SNA plant and animal habitats? Specifically the rusty patch bumblebee. Does this align with the recommendations with the DNR?"*

Response:
Construction and development activities will be confined to the Proposed Project site and will not encroach into the adjacent SNA. As stated in Item 13.d. the Project Proposer will hire a qualified ecologist to develop a survey plan for the Proposed Project site that is acceptable to the MnDNR. The survey plan will address the species identified by the US Fish and Wildlife Service, including the Rusty Patch Bumblebee. The site development and construction plan will be informed by the survey plan.

Comment:
Item 18: Transportation

- *"The road for the development that will be off of Grey Cloud Trail S seems to keep changing locations, has an environmental impact been done to those residents and the enclosed environment surrounding where these roads will be placed."*

Response:
Comment noted. The final access road locations will be established through the Land Use Application process that must be reviewed and approved by the City of Cottage Grove. All proper permits, including access permits, must be obtained prior to the commencement of any site work.

Comment:
Item 11: Water Resources

- *"This project will be within the geographic boundaries of Cottage Grove's MS4 Permit (MS400082). The permittees Wasteload Allocations (WLA) are assigned by TMDL reduction requirements in the table below... In addition to the MS4 requirements below, the Lake Pepin TMDL will also assign a TP load reduction, but that won't take effect until 2025 (I think). The EAW makes no mention of the municipal stormwater impacts associated with the NPDES permit or plan to address the increased TP and TSS loading being exported from this project after project completion. The MNLCS states that the current predominant land cover in the project area is currently tall dry grasses, forest, and shrubland landcover, which will most likely be replaced with turfgrass, and impervious surface, which would/could have a higher yield of TP and TSS."*

Response:
The Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements
- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan
- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project

Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Comment:

Item 11: Water Resources

- *"The project doesn't recognize any impaired waters within 1-mile of the project boundary, with Moers Lake, Grey Cloud Channel, and Grey Cloud Slough being the only water bodies within 1-mile. While this is technically true when considering the stream line-work distance from the project boundary, these water bodies are hydraulically directly connected to the Mississippi River Main stem, that any impact on these water bodies would be as if having the same impact on the Mississippi River (AUID 07010206-814, Upper St. Anthony Falls to St. Croix R), which is designated as impaired."*

Response:

Comment noted. The EAW acknowledges the connected nature of the water features adjacent to the Proposed Project site in Item 11. As noted in Item 11.i. given that the surface waters are connected, it states that the SWPPP prepared for the site must include all additional stormwater Best Management Practices (BMPs) for discharges to impaired waters since the runoff from the Project Area ultimately drains to the Mississippi River which includes segments on the 303d impaired list.

Comment:

Item 11: Water Resources

- *"Although the project boundaries are not within and wellhead protection area, or Drinking water supply management areas (DWSMAs), there is a large DWSMA and Wellhead protection area that borders the project directly to the north. What is the EAW report and response to that?"*

Response:

Comment noted. The City will coordinate with the Project Proposer on the extension of the municipal water supply system to the site and will follow any necessary rules and regulations if the system will be impacted by the DWSMA.

14. KRAUSS, ORIANA RUEDA (CITIZEN)

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The natural habitat for wildlife should be considered as a delicate resource to help reduce climate change, for the many ecosystem goods and services a healthy ecosystem like that can provide, and for the enjoyment of residents. Only half of the houses proposed should be allowed, or not at all if possible. We need to be consequential and understand that we depend on nature 100%, there is no planet B, and we need to protect nature whenever possible if we are to survive. Even though the area is a former golf course, if left alone to regenerate, these beautiful dunes can easily regain native plants and animals from around the area. The amount of impervious surfaces being increased from 4.4 to 47.8 is excessive, and the amount of wooded, grassland and wetland areas should be left as it is, not decreased as proposed on Table 5."*

- *"In my opinion, adequate space is not being given for the natural ecosystem to regenerate, reproduce and sustain the amount of plants and animals currently existing in the area. I request much less parking, paved and lawn areas and significantly more (at least 50% of the total area) areas with native plants that are not mowed and are left undisturbed, and the establishment of several pollinator gardens."*

Response:
Comment noted. The Project Proposer must apply for several Land Use Applications where the specific site details including landscape plan with plant schedule will be reviewed for compliance with the City's ordinances and recently approved Master Plan for this property. The Land Use Application process will include review of the number of units, impervious surface coverage, stormwater management and landscape plan. This process will include a public hearing where the City will solicit public testimony regarding the Proposed Project.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Given that the site is in the "High Potential Zone" for the Rusty Patched Bumble Bee and other important pollinators, no insecticides or pesticides should be used at all."*

Response:
Comment noted.

Comment:
Item 18: Transportation

- *"I also wanted to highlight that the two small wetland areas that may be impacted depending on the final alignment of the County Road and of the main entrance road into the neighborhood certainly need to meet strict mitigation plans, as they are part of the Mississippi River watershed.*
  If nothing else, at least leave undisturbed the adjacent undeveloped land of approximately 17.8 acres mentioned on the "Infrastructure and Project Area Improvement section". A full site grading is about the worst thing that can be done to an area like this. I request it is only done in areas where it is absolutely necessary."

Response:
Comment noted. The Project Proposer will be required to prepare a wetland replacement and mitigation plan and obtain all appropriate permits from the City and the South Washington Watershed District (SWWD).

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"According to the following paragraph: "This Project will meet the City's objectives identified in the Master Plan that includes providing diverse, sustainable housing choices and options while providing protection of important natural resources and amenities along the Mississippi River that are consistent with its MRRCA plan and ordinances." where exactly are the protections for natural resources?"*
- *"The proximity of the proposed area to a Scientific Natural Area (SNA) also concerns me and many other residents around the area. A development of these dimensions would certainly have a negative impact*

on the "high-quality vegetation and habitat" found in and around the SNA and the Mississippi river. The area being adjacent to the Mississippi River also highlights the importance of this area as a natural corridor for a wide variety of wildlife. This is part of the reason why this area is so ecologically important and there are a lot of concerned residents and organizations opposing this project. The effects of this project could affect important rare and threatened species such as the Northern Long Eared Bat, the Rusty-patched Bumble Bee, and the Monarch butterfly, which should be aggressively protected."

Response:
Comment noted. As shown on Figure 5 Concept Sketch Plan a minimum of 25-acres is planned for permanent protection as park, open space or natural resource area. The Project Proposer and the MnDNR are working on an agreement for the sale of an approximately 12-acre piece of land in the southeast corner of the site to expand the SNA and further protect the natural resources in this area of the site. Finally, the Project Proposer will hire a qualified ecologist to prepare a survey of the property that is acceptable to the MnDNR. The process will ensure that the construction and site development activities are completed consistent with the recommendations of the MnDNR.

15. MONJEAU-MARZ, CORINNE L. (CITIZEN)

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"It is the entire property that should be protected and preserved as a scenic park and wildlife refuge, and not just a sliver of it."*

Response:
Comment noted. As described in the EAW and as shown on Figure 5 of the EAW, a minimum of 25-acres is planned to be protected as park, open space and natural area. The Project Proposer is working with the MnDNR to add approximately 12-acres of land to the adjacent SNA.

16. MATTER, BONNIE (CITIZEN)

Comment:
Item 9: Land Use

- *"It appears there is only one way in and out of this residential development sand there is "potential" for one more – both on the north side of the development – to serve the needs of 499 residences. This does not seem like a very good plan. In an emergency, what if the evacuation plan?"*

Response:
As shown Figure 5. Concept Sketch Plan in Appendix A of the EAW there are two access road connections into the new development from Grey Cloud Trail South. The road network internal to the Proposed Project site is interconnected to ensure two access locations are provided to residents in the new neighborhoods.

Comment:
Item 9: Land Use

- *"Parcels 3, 5, 2 and 4 – What is the distance (and what is the required distance) between the railroad tracks and the residences. Are there building standards for residences and railroad tracks? Currently 37 trains per day go through this area! Is there potential for increased rail traffic in the future? What is the potential for fires from rail sparks in hot, dry summers."*

Item 16: Air

- *"Railroads are also notorious for starting fires in the summer. Might want to add that to a mitigation plan."*

Item 20: Other Potential environment effects

- *"Potential fires in the summer around the railroad tracks from train sparks."*

Response:

Comment noted. As shown on Figure 5 of the EAW the closest lot is setback approximately 50-feet from the BNSF railroad right-of-way and 100-feet from the railroad track. The City of Cottage Grove establishes the required setback from all property lines including the railroad right-of-way. It is unknown whether BNSF will increase rail traffic in the future. Minnesota State Statute 219.57 requires any company operating a railroad to use on each locomotive engine a spark arrester that the master mechanic shall inspect each time before leaving the groundhouse. It is the responsibility of BNSF to train its employees and monitor the active rail lines during the dry season in accordance with the requirements of the statute. It should be noted that there is a long history of homes being constructed adjacent to railroads without serious conflicts or issues.

Comment:

Item 9: Land Use

- *"Assumption: [Parcel] 2 (Exception) refers to SNA property. Please confirm that assumption is correct. If it's something else, please advise what it is."*

Response:

The Exception Parcel is identified on Figure 3 of the EAW. Project Parcels and is labeled as "Exception." This parcel is privately owned and is not a part of the SNA. It is not proposed for development as part of the Proposed Project.

Comment:

Item 9: Land Use

- *"Add: This development is near railroad tracks and a 3.5 million square foot NorthPoint Logistics Center which will have a major impact on traffic both vehicular and rail and possibly, increased rail traffic."*

Response:

Comment noted. The presence of the BNSF railroad tracks are referenced in Items 6, 9, and 17 of the EAW. It is noted that the Proposed Project site is located southwest of the NorthPoint Logistics Center which the City approved in December 2021. The Traffic Impact Study prepared for the Proposed Project has been updated to include the NorthPoint Logistics Center and is provided as Attachment C.

Comment:

Item 10: Geology, Soils and Topography/Land Forms

- *"Does this mean the karst areas could become "active" if enough water entered the limestone bedrock? And what kind of pond liners and barriers will be used and how long do they last and what type of impact will they have on that environment? And who is responsible for maintaining the replacement schedule?"*

- *"Sounds like there might be karst impacts in the area. Yes? Or No?*

Response:

The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process, and will refer to the guidelines outlined in the Minnesota Pollution Control Agency's "Minnesota Stormwater Manual.[8]

Comment:

Item 10: Geology, Soils and Topography/Land Forms

- *"Where is "329 Chaska silt loam 8.0 acres" on the Figure 5. Concept Sketch Plan"*

Response:

Figure 12. NRCS Soil Classifications Map in the EAW identifies the geographic area of the soil classifications. The 329 Chaska silt loam area is identified in purple on the exhibit. This soil classification area generally corresponds to the area of delineated wetlands on the north portion of the site.

Comment:

Item 10: Geology, Soils and Topography/Land Forms

- *"Concern in this section is with increased rainfall and runoff and the ability for the city services to handle over time and/or ability to handle extreme weather events. Mississippi Dunes should remain undeveloped to help mitigate future extreme weather events. Impervious surfaces will increase substantially with this development, the 3.5 million square foot NorthPoint logistics center, the roads as well as the additional residential and commercial/industrial traffic that will be generated by both and they all flow down the slope to the river."*

Item 11: Water Resources

- *"How will the city ensure that runoff (heavy rains, melting snow) from both this development and the 3.5 million square foot NorthPoint Logistics Center et al can be contained during extreme weather events and prevent damage to the Mississippi River? This development removes the natural river buffer and*

[8] https://stormwater.pca.state.mn.us/index.php/Main_Page

filter. Will look forward to seeing and very robust SWPPP and not just a "meets minimum requirements.""

- *"It is now stated that "the Project is located within a karst area". Confirmed? This is really not good. Have these people ever experienced a sink hole?? Look forward to a very robust SWPPP Plan. And mitigation plan should something happen where something got "overlooked." Who is responsible? The homeowner? Not insurable."*

- *"Many impervious surfaces are being added – houses, buildings, pavement, roofs, sidewalks, driveways, et al – this will not improve how runoff and stormwater are managed in the Project Area."*

Response:
Comment noted. The Project Proposer is required to prepare a stormwater management and erosion control plan and SWPPP for the Proposed Project. The stormwater plan and SWPPP must comply with the requirements of the City, South Washington Watershed District (SWWD) and MPCA. As noted in Item 10 no active karst locations have been identified on the site. The stormwater management plan must be developed with consideration of the geologic formations and must locate stormwater features in areas of the site with adequate separation to the limestone bedrock or such features may require pond liners or other methods that create a barrier between the stormwater features and the bedrock. All appropriate permits must be obtained prior to the commencement of site work. (Table 6 in the EAW).

The Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements
- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan
- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Additionally, the Proposed Project does retain a minimum 300-foot vegetative/natural resources and park buffer between the Mississippi River and the development area (Figure 5 in the EAW).

Comment:
Item 11: Water Resources

- *"Is the referenced 8.2 acres of wetlands Parcels 3 and 5? Is that the High Density Senior Housing Building? Does that make sense? Doesn't make sense to put concrete slab on a wet area that is subject to freezing in cold climate and, therefore, causing the foundation to crack."*

- *"Are the referenced "stormwater infiltration basins" referenced on Figure 5 the "Delineated Wetlands" called out on the map in the High Density Residential Senior Housing area? If not, advise location of stormwater infiltration basins."*

Response:
As shown on Figure 5 of the EAW a small area of wetland impact is proposed to cross the wetland with a roadway to access the proposed Senior Living building. The proposed Senior Living Building will not be located on or in a wetland. The proposed building(s) will be required to meet all wetland setbacks and follow all buffers as regulated by the South Washington Watershed District (SWWD). The locations of infiltration basins will be determined through the Land Use Application process.

Comment:
Item 11: Water Resources

- *"How will those foundations hold up with vibration from the 37 trains passing through daily and the Minnesota freezing and thawing."*

Response:
Comment noted. The proposed homes will be setback a minimum of 200-feet from the railroad tracks. There are no adverse impacts to the structures anticipated as a result of the active BNSF railroad.

Comment:
Item 11: Water Resources

- *"In this development, mitigation should be an absolute requirement! Purchase of offsite mitigation credit is NOT an option. Figure out how to fix it or don't do it."*

- *"It is time to stop referring to "minimum standards." Development is occurring near the Mississippi River. Robust measures should be implemented to ensure that the River is not impacted in a negative way by this development OR the 3.5 million square foot NorthPoint Logistics Center and all it will bring."*

Response:
Comment noted. The Project Proposer is required to meet the minimum requirements of all regulatory agencies having jurisdiction or authority over the Proposed Project. It should be noted that some minimum requirements will be greater on this site and that the objective is for stormwater mitigation to occur on site. This EAW does not address or include any mitigative response of the NorthPoint Logistics Center.

Comment:
Item 11: Water Resources

- *"What/where is the plan?" [comment referring to the wetland mitigation and replacement plan]*

Response:
The Project Proposer must prepare a wetland mitigation and replacement plan prior to the commencement of any site work. This Plan is developed as part of the Land Use Application process which proceeds after the completion of the EAW. The South Washington Watershed District (SWWD) is the Responsible Government Unit (RGU) for administering the wetland conservation act and will be responsible for review and approval of the wetland mitigation and replacement plan. As demonstrated in

Figure 5, the Project Proposer will protect the majority of the wetlands as part of the Project and will follow all required buffers and setbacks for those wetlands protected as required by the SWWD.

Comment:

Item 17: Noise

- *"Those who live by rivers know that sound carries – especially in the winter. It's interesting that seniors would be put in buildings next to the railroad tracks…If additional trains or railroad spurs into the logistics center are added, there will be increased noise as the cars are humped together. Quality of life would be negatively impacted. Maybe downright miserable."*

- *"How will this noise by mitigated? List the train schedule times. Provide potential for additional trains or train spurs in the future. How many are anticipated? The logistics center developer will know based on their history. Do trains only run between certain times? Do the semis, truck-trailers, delivery vans, autos for the logistics center only operate between 7 AM and 7 PM? How will the noise levels be mitigated for the residents living in the development?"*

Response:

Comment noted. The railroad is an existing condition and new residents of the Proposed Project will be made aware of its existence through disclosure statements to home buyers. The traffic route of the NorthPoint Logistics Center is not anticipated to pass the Proposed Project, and no adverse noise impacts to the Project are anticipated from its development.

Comment:

Item 18: Transportation

- *"S2 Traffic Solutions might have been unaware of the 3.5 million square foot NorthPoint Logistics Center and it's accompanying semi, truck-trailer, delivery van and car traffic that will dramatically increase the traffic in this area and on these streets. The traffic study provided is not relevant. This traffic study should be redone and updated with relevant estimates that can be provided by the developer of the NorthPoint Logistics Center."*

- *"Again, this traffic study needs to be updated. Hadley, Grey Cloud Trail South, 100th Street, 103rd Street — all of these traffic figures will be dramatically impacted by the NorthPoint Logistics Center semi, truck-trailer, delivery van and car traffic. This will also affect the residential development. It's also unrealistic to expect that all of these users (including the semis) will drive 5 miles out of the way south to get to the roundabout on Keats (19) and then exit onto 61 and go 5 miles north to get back to where they started and head towards 494/694. They will be taking Hadley to Grey Cloud Trail through St. Paul Park and over to the 70th Street exit. This whole thing is going to be one major problem. And then add to that, sitting at railroad crossings waiting for the trains to move through. This is an accident waiting to happen."*

- *"SSTS should redo the traffic study to incorporate the changes with the NorthPoint Logistics Center traffic estimates. The study provided is out-of-date and not relevant."*

Response:

Comment noted. The Traffic Impact Study included in the EAW was prepared using the general Industrial land use category from the 2040 Comprehensive Plan. The NorthPoint Logistics Center was approved in December 2021 and specific development plan for the area is now known. The Traffic Impact Study has been updated to reflect the approved NorthPoint Logistics Center project and is provided in Attachment C of this response package.

Comment:

Item 18: Transportation

- *"It's not enough parking. In the winter, cars are not allowed to park on the street in Cottage Grove. And an expectation for one parking spot for the senior building is ridiculous. Some day people will be able to visit each other again. Throw parties. More parking (or less housing) is required. Where are visitors supposed to park? What do residents with two cars do for parking? And with the water tables, it's certain there will be no underground garage! Will there even be garages for the senior buildings? There is no bus service in this area. Residents will need to have cars to get to the grocery store or the doctor. This is very poorly thought through."*

Response:

Comment noted. The City Code establishes the required number of parking stall per unit by use type. The City of Cottage Grove requires 1.5 spaces per unit of Senior Citizen Housing. The Proposed Project must demonstrate compliance with the required number of parking stalls that will be determined when the final number units and architectural plan are reviewed during the Land Use Application process. It is expected that parking will be accommodated through a combination of below grade and surface parking options. Extreme caution has been given to the design and placement of the proposed buildings to ensure all buildings are constructed to avoid conflicts with the water table.

Comment:

Item 18: Transportation

- *"This is an assumption that should not be made. Provide the source for this information." [referring to the Senior Living Building being served through Metro Mobility]*

Response:

Comment noted. The information was obtained from the City of Cottage Grove 2040 Comprehensive Plan.

Comment:

Item 19: Cumulative Potential Effect

- *"There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying daily semis, truck-trailers, delivery vans and cars that will impact this area and its residents. There are 37 trains that run on these tracks daily. The tracks are right next to the development. No indication of how this will be mitigated or if there is the potential for increased rail traffic. There are numerous issues identified throughout this feedback/comment to the EAW. Is anyone listening? Looking forward to responses."*

Response:

Comment noted. The Traffic Impact Study included in the EAW was prepared using the general Industrial land use category from the 2040 Comprehensive Plan. The NorthPoint Logistics Center was approved in December 2021 and specific development plan for the area is now known. The Traffic Impact Study has been updated to reflect the approved NorthPoint Logistics Center project and is provided in Attachment C of this response package. The November TIS, as well as the updated TIS, reflects that specific improvements to the roadways are required to adequately mitigate the traffic generated by the Proposed Project. There is a long history of homes being adjacent to railroads without serious conflicts or issues.

Comment:

Item 20: Other Potential Environment Effects

- *"At the end of the day, you're messing with Mother Nature. Wonder who wins?"*

Response:

Comment noted.

17. O'BOYLE, SHARON (CITIZEN)

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"All Sand would need to be removed from the acreage as well as all of the existing trees which would be devastating to the Environment and the Wildlife habitat."*

Response:

The City evaluated the land area adjacent to the Mississippi River during the Master Plan process and identified several areas to be preserved as park or open space. The areas the City identified as highest value are located within the area identified on Figure 4 and Figure 5 of the EAW adjacent to the Mississippi River. The area shown is approximately 25-acres.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Every "mitigation" proposed by the Housing Developer and the EAW would be disastrous regarding the Environment and Climate Change."*

Response:

Comment noted. The proposed mitigation contained in the EAW is intended to offset the potential negative impacts to the environment as a result of the Proposed Project. Mitigation includes implementation of BMPs, conducting ecological surveys to determine areas of significant habitat, and requiring all necessary permits to be obtained.

Comment:

Item 18: Transportation and Item 11: Water Resources

- *"Any additional traffic from any size of a Housing Development would have a Negative impact on both the current residents of Cottage Grove and the surrounding Communities. The EAW states that there would be an additional 4,000 vehicle road trips per day. Which is based on 2 people/ household, which I believe is underestimated. There is also an underestimation regarding water usage and sewer usage- also based on 2 people/ household."*

Response:

Comment noted. The average persons per household is based on the unit-mix of the Proposed Project, as well as demographic information provided by the Metropolitan Council. Water and sewer usage assumptions are based on actual historical use within the City.

Comment:

Item 14: Historic Properties

- *"There is a Historical house located on the property and a barn. The house has been used as a rental but could be used to promote the Park."*

Response:

Comment noted.

Comment:

Item 9: Land Use

- *"The EAW brings up the pros and cons. The land usage must remain Open Space to become a Park that would benefit the Community, the current residents, surrounding Communities and future generations of children."*

- *"Climate Change is an indisputable FACT. We MUST preserve what Open Spaces we have left."*

Response:

Comment noted.

18. SCHWARTZ, BARB (CITIZEN)

Comment:

Item 11: Water Resources

- *"The phosphorous levels for the river are at a peak level currently. Who monitors this? What is the mitigation plan if the levels exceed the upper limit? The EAW states the water would eventually enter the river after flowing through segments of the designated Critical Area. Since adjacent areas are considered critical it is even more vital that the phosphorous does not end up in the river."*

Response:

Comment noted. The Minnesota Pollution Control Agency (MPCA) in coordination with the Minnesota Department of Natural Resources and the Watershed Districts monitor phosphorous and other

contaminant loaded in the State's water bodies. The Proposed Project is required to meet all City and South Washington Watershed District (SWWD) requirements for stormwater management on the site which establishes requirements for quality and quantity control. (See Item 11.b.ii. of the EAW)

Comment:

Item 10: Geology, Soils and Topography/Land Forms

- *"The topography is not favorable for development. The limestone is aging and decomposing. Water hastens the process. The mitigation suggested seems tenuous at best, e.g. using children's pool material to keep this from happening in this large area. Will all the aging limestone in the area surrounding the dunes be mitigated to avoid travelling sink holes and karsts? Will buyers be fully informed?"*

- *"There is a karst on the north side of the area that is indicative of the problem. It can collapse causing a sinkhole. They also emit CO2. This is proof that the limestone is thinning as are the depth samples taken. A workable protection plan seems imperative. Would the City be libel if sink holes occurred? Will buyers be informed of this possibility?"*

Response:

Comment noted. The City, and the Project Proposer, understand that karst conditions may occur in areas with underlying limestone which includes the Project site. Limestone underlies much of the Twin Cities Metropolitan Area, including in the City of Cottage Grove. The City is not aware of any known sinkholes or similar occurrences within the City but understands that adequate due diligence on the site is critical to ensure that the final design and engineering of the Project is responsive to the site-specific geological conditions. As indicated in EAW item 10, a Preliminary Geotechnical Evaluation Report was prepared by the Project Proposer and based on the outcomes of that report additional analysis and study of the site is planned by the Project Proposer. The Project Proposer will work with the City to determine the most appropriate mitigation and site design through the permit and approval process and will refer to the guidelines outlined in the Minnesota Pollution Control Agency's "Minnesota Stormwater Manual.[9]

Comment:

Item 18: Transportation

- *"Thirty-seven trains pass through daily. There could be derailments and/or leakage of transported substances. The EAW does no address what is being transported. Were decibel measurements taken? Noise pollution seems like a certainty. How will children and pets, both populations known to stray, separate from admomissions."*

Response:

Comment noted. The train is an existing condition and pre-dates the Proposed Project. All future homeowners will be aware of the train, the frequency of trips, sounds associated with train tracks and that the trains will transport a variety of substances and materials. Railroads are a common and known commodity for home buyers.

[9] https://stormwater.pca.state.mn.us/index.php/Main_Page

Comment:

Item 11: Water Resources

- *"What is off-site mitigation credit? If it allows loosening regulations a la Quid Quo Pro, I am against such permission."*

Response:

Comment noted.

Comment:

Item 11: Water Resources

- *"are there any situations in which the existing well head could be compromised due to this development? If there is an extended drought, Could the well head be compromised? PlanB?"*

Response:

Comment noted. No. The Proposed Project cannot compromise the existing well or water supply.

Comment:

Item 20: Other Potential Environmental Effects

- *"If there is a threatening weather event, chemical spill etc., where can people with slab bases go for cover? How quickly can buyers evacuate given the exiting limitations?"*

Response:

Comment noted. Citizens in apartment buildings, townhomes, or condominium, residents with a slab on grade home will seek shelter either in a strong commercial structure (malls, libraries, etc.) or in an interior room without windows. In the event that residents need to leave their homes due to an emergency, two main ingress/egress access locations connect the neighborhood to Grey Cloud Trail S that provide access to the greater region.

Comment:

- *"The EAW does not address the amount of CO2 emissions that can be expected. It does not state the amount of CO2 that would be absorbed if there were less impervious surfaces. The TIMES states this runoff is the primary source of pollution of rivers and 8% of lakes. Urban Heat Islands form impervious surfaces creating pockets or islands of high solar heat. Impervious surfaces would/could have a higher yield of TP and TSS."*

Response:

Comment noted.

Comment:

- *"While the intent of the EAW is neutrality, neither for nor against development, it is biased. It only gives attention to the impact of the project, not the impact of land preservation."*

- *"The Master Plan runs until 2040. Shouldn't the EAW address the projected impact of climate change for this area?"*

- *The EAW inserted documentation dating back to 2013 as if still current. Shouldn't this be updated. Situations could have changed over this span of time."*

Response:
Comment noted. The purpose of the EAW is to review a Proposed Project for potential environmental impacts. The Minnesota Environmental Quality Board (EQB) provides the EAW template form that was last updated in 2013 which is documented in the upper left corner of the EAW. The current form includes 20 Items that must be addressed. The subject property is located in an area designated as part of the Metropolitan Urban Service Area (MUSA) where the Metropolitan Council requires suburban densities because regional infrastructure has been designed to serve the area.

Comment:
Item 11: Water Resources

- *"If flooding becomes an issue with climate change, rainwater combines with sewers and the raw sewage could escape into the water. Is there a flood plan? If a drought occurs the shallow back waters have an algae bloom resulting in a stench, and low oxygenation for fish and wild-life. None of these realistic concerns were addressed."*

Response:
Comment noted. The Project Proposer is required to prepare a stormwater management plan that addresses the 2, 10 and 100-year flood events. The stormwater and erosion control plan must be reviewed and approved by the City and South Washington Watershed District (SWWD). Shallow back waters is an existing condition.

Comment:
Item 11: Water Resources

- *"The EAW does not address how municipal storm water impacts in conjunction with the NPDES permit. What is the plan for the increased TP and TSS loading being exported from this project after project completion?"*

Response:
There are specific design requirements that the Project Proposer must meet before obtaining approvals/permits related to stormwater, NPDES, and erosion control.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"… Given the sensitivity of the area, the close proximity of the SNA, and native plant and animal communities that exist, that more information on potential impacts be considered…"*

Response:
Comment noted. As stated in Item 13.d. of the EAW the Project Proposer will hire a qualified ecologist to prepare a survey plan of the site acceptable to the MnDNR. As part of the survey process the Project Proposer will work with the MnDNR on any required permitted, mitigation and construction/site development activities.

19. SCHWEN, BILL (CITIZEN)

Comment:
Item 11: Water Resources

- *"In a 50 or 100 year rain event, where is all this new runoff going to be stored?"*

Response:
The Project Proposer is required to demonstrate compliance with the City and South Washington Watershed District (SWWD) standards as stated in Item 11b.ii. The City and SWWD standards require peak flow rates after development to not exceed pre-development peak flow rates for the 2-year, 10-year and 100-year events.

Comment:
Item 9: Land Use

- *"…the housing numbers and density are too high for this property and that river pollution will be difficult or impossible to avoid without plan modifications."*

Response:
Comment noted. As stated in Item 9 of the EAW, a comprehensive plan amendment is required and will consider the proposed density of the Project and determine if it consistent with the City's development goals and the Metropolitan Council's density standards. The Project Proposer must demonstrate compliance with the City and SWWD standards as part of the Land Use Application process.

Comment:
Item 18: Transportation

- *"Also, hard to imagine is danger of them heading home, down what the locals call 'dead-man's-hill'. Even with our very low traffic volume, 3 people have died hitting that bridge since I moved here. With the forecasted increase in traffic, how many more will die or suffer serious injury? Another problematic issue with the master plan is noted in figure 4 of the EAW. That diagram places the main access to the development just beyond the railroad bridge. Significant rush hour congestion there is guaranteed…"*

Response:
Comment noted. The Project Proposer is working with the City and Washington County on determining safest access into the Proposed Project. The location of the access points was determined based on spacing guidelines and sight lines. These locations are studied in the Traffic Impact Study (TIS) provided in Appendix C of the EAW.

Comment:

Item 18: Transportation

- *"Consider a fire in a multistory elderly retirement building where a hook and ladder fire truck has to drive into St Paul Park to avoid the 10'4" bridge on 103rd Street."*

Response:

Comment noted. The Project Proposer is working with the City and Washington County on determining safest access into the Proposed Project site for all residents of the Proposed Project. The final location will be identified in the plans reviewed during the Land Use Application process.

20. SMITH, CHRISTOPHER (CITIZEN)

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to identify and discuss the state endangered Blanchard's Cricket Frog…"*
- *"The EAW fails to identify and discuss the state threatened Blanding's Turtle…"*

Response:

Comment noted. The NHIS did not identify the Blanchard's Cricket Frog or Blanding's Turtle within the vicinity of the Proposed Project.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to do its due diligence in respect to the federally endangered rusty-patched bumble bee…"*
- *"The EAW fails to discuss tree clearing timing and tree clearing impacts to protected bats, including the federally protected northern long-eared bat, (Myotis septentrionalis) (hereafter NLEB), protected birds (i.e., Migratory Bird Treaty Act), and bald eagles (i.e., Bald and Golden Eagle Protection Act)."*
- *"The EAW references "Attachment B" on page 30 and states that, "Mitigation suggested will be followed to the extent possible…" (emphasis added).* ***Following applicable federal law is not optional.*** *Assuming the project relies on the Final 4(d) Rule for the NLEB to achieve compliance (though this is not clear, there is no statement in the EAW about how the project will follow federal law related to this species), the EAW should discuss in detail, what steps will be taken to avoid and minimize impacts to NLEB..."*
- *"The EAW fails to mention and discuss proposed impacts to migratory birds in the context of the proposed project occurring within the Mississippi River Twin Cities Important Bird Area…"*
- *"The EAW fails to address foreseeable indirect effects of the proposed action on state and federal threatened and endangered mussels…"*

- *"The EAW insinuates that the prior property use, as a golf course, somehow precludes the possibility of these rare species from occurring on site and/or somehow creates a net benefit via the conversion of the area to residential development. Yet, the EAW provides no tangible data or support to back up this assertion. EAW fails to adequately acknowledge high quality habitats still present on the site."*

- *"The EAW fails to address DNR habitat assessment/endangered plant survey requirements provided in the DNR NHIS letter."*

  Response:
  Comment noted. As stated in Item 13(d) of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources. The developed survey plan will be tailored to the existing site conditions and an acceptable development and construction plan, including appropriate mitigative strategies, will be developed to the satisfaction of the MnDNR. The Project Proposer will be required to follow the agreed to survey plan and site development and construction plan developed with the MnDNR and will be required to follow the City's MRCCA ordinance.

Comment:
Item 19: Cumulative Potential Effect

- *"The EAW fails to discuss / address reasonably foreseeable cumulative effects associated with increases in impervious surfaces, increases in salt and other deicing products, increases in roadkill (including turtles), and other similar impacts that may affect terrestrial and/or aquatic organisms (e.g., endangered mussels)."*

  Response:
  Comment noted. As stated in Item 19.c. of the EAW based on the available information and existing planning efforts, there are no known cumulative environmental impacts that cannot be effectively mitigated provided proper permitting and development processes are followed. This includes proper mitigation associated with stormwater management (impervious surface), runoff (increases in salt, etc.), and impacts that may affect terrestrial or other aquatic organisms such as the endangered mussels.

Comment:
Item 20: Other Potential Environmental Effects

- "*The project proposer fails to address reasonably foreseeable maintenance needs associated with a residential development of this type…"*

  Response:
  Comment noted.

Comment:
Item 15: Visual

- *"The EAW fails to discuss Artificial Light at Night (ALAN) impacts…"*

Response:
Comment noted. The Proposed Project will be required to comply with Section 11-6-8 of the City's Zoning Ordinance. Review of the lighting plan will be performed as part of the Land Use Application process.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Rare snakes, turtles, birds, and small mammals occur in the project area. The proposed project commits to following all erosion control BMPs, but it's not clear in the EAW that the project will require the use of erosion control materials that reduce the risk of wildlife entanglement and/or microplastics. This should be explicitly addressed."*

Response:
Comment noted. As stated in Item 13.d. bullet 4 of the EAW the Project Proposer will use erosion control products that have biodegradable netting as recommended by the MnDNR.

Comment:
Item 8: Required Permits and Status

- *"The proposed project is anticipated to require DNR authorization and/or permits. Note that per the "Cooperative Agreement between the Minnesota Department of Natural Resources and U.S. Fish and Wildlife Service," DNR may not issue permits that, "(1) has a substantial lethal potential for an endangered species, or (2) has a substantial potential for inhibiting the procreative ability of an endangered species…"*

Response:
Comment noted.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW states that the conversation of the property from a golf course to a residential development will result in fewer pesticides being applied. The EAW provides no evidence to support this assertion, nor does the EAW mention that the golf course has been closed for many years, and presumably few if any pesticides have been utilized on the property in recent years. The EAW fails to discuss the fact that commercial applications of pesticides are done by licensed applicators, whereas many residential applications are done by the homeowners themselves, and that these homeowners are rarely licensed."*

Response:
Comment noted. The golf course use was terminated at the end of 2017. Since 2018 the site has been studied for redevelopment. Several resources are available from the Minnesota Department of Agriculture (MDA) and the Minnesota Pollution Control Agency (MPCA) that indicate the use of pesticides and herbicides can remain on the property for several years especially in area of high use (generally greens and tee boxes) as well as in areas where the products were stored.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to discuss that a DNR "MBS Site of Biodiversity Significance" will be destroyed by the proposed project."*

Response:

Comment noted. The information available from the MnDNR regarding sites with Biodiversity Significance is dated from 1987-1989 for the Proposed Project site and identifies a patch of potential significance in the north central portion of the site and the southeastern portion of the site. This data pre-dates the development of the golf course in 1995, which heavily disturbed the area identified in the northcentral portion of the site. The area in the southeastern corner is the area that the MnDNR is interested in purchasing and adding to the adjacent SNA.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to discuss that Friends of the Mississippi River and DNR have tried to acquire portions of the site to conserve state and globally significant natural resources presence (e.g., remnant prairie, globally imperiled species). Many of these important natural resources will be lost/destroyed by the proposed project. Public ownership of portions of the proposed project area for the purposed of conversation are in the public interest."*

Response:

Comment noted. As stated in Item 6, 9 and 13 of the EAW the Project Proposer is working with the City and the MnDNR on a plan to protect the entire Mississippi River frontage for a combination of park, open space and natural area. Further, the Project Proposer is working with the MnDNR on the protection of approximately 12-acres on the southeaster edge of the site to be added to the SNA.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to adequately address the foreseeable increase in use of adjacent SNA that will result from construction of a large residential development immediately adjacent to the property. In addition, residential developments sharing an unprotected border with a protected natural area is known to increase the invasion of the natural area by non-native plants and animals, lawn maintenance chemicals and poisons and yard management practices…"*

Response:

Comment noted. The Project Proposer does not have regulatory authority to manage the use of the SNA but is working collaboratively with the MnDNR on a sale of land to expand the SNA.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"The EAW fails to analyze the project's impacts in the context of the project's occurrence within an identified "Critical Area" established under Minnesota Rules, Section 6106.0160 and City ordinance. The*

EAW mentions the presence of a City Ordinance, but the proposed action, as presented, appears to violate both state law and the local ordinance."

Response:
Comment noted. The "Critical Area" is the Mississippi River Critical Corridor Area (MRCCA) which is addressed in Items 9, 11, and 15 and is geographically shown on Figure 7 of the EAW. It is noted throughout the EAW that the Proposed Project is subject to the MRCCA rules and the City's adopted MRCCA ordinance.

Comment:
Item 8: Permits and Approvals Required

- *"The EAW fails to discuss the foreseeable need for local variances to deliver the proposed project. It's assumed, absent discussion in the EAW to the contrary, that the project proposer will require numerous variances to deliver the proposed project – including variances related to the Mississippi River Corridor Critical Area.*
  A project proposer cannot both create practical difficulties and then allege hardships that will foreseeably require variances to deliver said proposed project (Minnesota Statutes, Chapter 462.357, Subd. 6(2))."

Response:
Comment noted. The City will determine if any variances are needed as part of the Land Use Application process.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Note the proposed project results in a permanent physical encroachment on lands within a national park (Mississippi National River and Recreation Area) and most probably to a Scientific and Natural Area (SNA), in which case the project also triggers a mandatory EAW under 4410.4300, Subp. 30 and allows DNR to be the RGU."*

Response:
Comment noted. As stated in Minnesota State Statute 116G.15, the Proposed Project is located in the Mississippi National River and Recreation Area, and private land and homes are located within this boundary and are not considered an "encroachment." The MnDNR owns the SNA adjacent to the Proposed Project site but the boundary has been established by an official Certificate of Survey.

21. TIEFENBRUCK, GRANT (CITIZEN)

Comment:
Item 11: Water Resources

- *"There must be considerable expense involved in extending the potable drinking water supply line and the sanitary sewer system to this somewhat isolated patch of the City. The size of these lots do not seem compatible with the high end homes that will be needed to make this project a success"*

Response:

Comment noted. The Project Proposer is working with the City to determine the appropriate density and unit types to support the extension of the water supply to this area of the City.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"I am disturbed that significant natural vegetation will be destroyed during the course of this project. This is not what we need during this period of climate change."*

Response:

Comment noted. A minimum of 25-acres along the Mississippi River frontage is planned for permanent protection as open space, park and natural area.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"I appreciate the good words that the developer says about using native plants for landscaping. There should, probably, be a City initiative for all home owners to do that. I am very doubtful that I will see any native vegetation if I drive into this area after construction is concluded."*

Response:

Comment noted. The Project Proposer is required to follow the recommended mitigation stated in the EAW which requires all stormwater management ponds and areas to be seeded using the approved MnDOT or BWSR native seed mix.

Comment:

Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Why doesn't the Environmental Assessment address Climate Change impacts? We know that destroying the rainforests is a bad thing to do. Why do we think that disturbing an existing ecosystem in MN has less effect? There should be provisions for the final project to at least be carbon neutral going forward."*

Response:

Comment noted. The City is required to use the official EAW form and completed the Items identified on the form. It is outside the scope of an EAW to study whether climate change is more negatively impacted by a particular project than by an "in lieu of" project.

22. WILLIAMS, COLE (CITIZEN)

Comment:

Item 11: Water Resources

- *"Address the municipal stormwater impacts associated with the NPDES permit with a plan to address increased TP and TSS loading being exported from this project and after it's completion. The MNLCS states current grasses, forest, etc. will be replaces with turf grass and impervious surfaces which could increase yield if TP and TSS."*

Response:
Comment noted. The Proposed Project must comply with all stormwater and erosion control regulations.

Comment:
Item 11: Water resources

- *"Amend: the adjacent waters (Mooers, Grey Cloud Channel and Slough are hydraulically connected to the Mississippi River Main stem, thus any impact on these waters would directly impact an impaired water body. (Upper St. Another Falls to St. Croix River is Impaired). The water within 1 mile of this proposed development should be considered to affected Impaired water."*

Response:
The EAW Guidelines identify the MPCA's 303d impaired water list as the appropriate resource to answer this EAW item. The response accurately states that the Grey Cloud Slough, Mooers and Grey Cloud Channel are adjacent waters within 1-mile of the Proposed Project site and that these waters are not listed on the MPCA's 303d impaired list. The response further indicates that since these waters are interconnected with the Mississippi River and that runoff from the Project Area ultimately drains to the Mississippi River that all additional stormwater Best Management Practices (BMPs) for discharges must be implemented.

Comment:
Item 11: Water Resources

- *"Take into account the protected wellhead area adjacent to this property with further study to assess impact to well and drinking water of adjacent properties."*

Response:
Comment noted.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Define, if possible, the natural area, owned by local government within the EAW, and potentially the EIS."*

Response:
The Proposed Project site is not owned by any public or government agency.

23. WHALEY, BRETT (CITIZEN)

Comment:
Item 9: Land Use [Figure 5]

- *"The figure 5 sketch plan in the EAW is awful. Is it a done deal there will be a cheap Pulte housing development there? I just find it incredibly sad that the area will permanently ruined and am extremely disappointed that this development was even approved in the first place."*

Response:
Comment noted. The Proposed Project has not been approved and is subject to the City of Cottage Grove's Land Use Application process as identified in Table 6 of the EAW.

24. ZIMMER ENVIRONMENTAL IMPROVEMENT (PRIVATE BUSINESS)

Comment:
Item 16: Air

- "*The Mississippi Dunes EAW fails to consider the greenhouse gas emissions or carbon footprint for the addition of 499 houses and the near-complete destruction of an almost natural area."*

Item 20: Other Potential Environmental Effects

- *"The proposed project could increase the temperature of the urban heat island by approximately 0.11 degrees Celsius. This is a significant figure when one considers preventing a full-blown climate catastrophe, we are seeking to avoid a 1.5C degree increase in mean global temperature."*

Response:
Comment noted.

Comment:
Item 16: Air

- *"Transportation is the largest source of greenhouse gas emissions in Minnesota, yet the extra almost forty million pounds of carbon emissions are not evaluated by the EAW."*

Response:
Comment noted. The Proposed Project was evaluated for compliance with the requested information identified in Item 16.

Comment:
Item 11: Water Resources

- *"No formal analysis of the increased nitrogen and phosphorus loading to the Mississippi River, a National Scenic River with some impairments has been included in the EAW."*

Response:
Comment noted.

Comment:
Item 13: Fish, Wildlife, Plant Communities and Sensitive Ecological Resources (Rare Features)

- *"Despite the presence of a number of rare and endangered species within one mile of the project site, no habitat or species surveys have been conducted with the EAW."*

Response:
As stated in Item 13(d) of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources. The developed

survey plan will be tailored to the existing site conditions and an acceptable development and construction plan, including appropriate mitigative strategies, will be developed to the satisfaction of the MnDNR. The Project Proposer will be required to follow the agreed to survey plan and site development and construction plan developed with the MnDNR and will be required to follow the City's MRCCA ordinance.

PUBLIC HEARING TESTIMONY & RESPONSES

25. MATTER, BONNIE (CITIZEN)

Comment:

- *Did the Planning Commission Members read the public comments that were submitted regarding the EAW?*

Response:
Comment noted.

Comment:

- *There are 37 daily trains that run by the proposed development. Missing from the EAW was information like the distance between the tracks and the residences in the development. Negative impact on the residents' quality of life due to: Noise pollution; Diesel engine smells and air quality; Train vibrations; Structural damage to houses due to foundation and settling issues; Potential grass fires in dry, hot summers from sparks; Train schedules: Morning, afternoon, evening, night, all the time, when do they run; Train loads: How big, how much, what's on them, any hazardous materials. How would increased future rail traffic impact future residents; what are the mitigation plans for these issues?*

Response:
Comment noted. As shown on Figure 5 of the EAW the closest lot is setback approximately 50-feet from the BNSF railroad right-of-way and 100-feet from the railroad track. The proposed homes will be setback a minimum of 200-feet from the railroad tracks. There are no adverse impacts to the structures anticipated as a result of the active BNSF railroad. The City of Cottage Grove establishes the required setback from all property lines including the railroad right-of-way. It is unknown whether BNSF will increase rail traffic in the future. Minnesota State Statute 219.57 requires any company operating a railroad to use on each locomotive engine a spark arrester that the master mechanic shall inspect each time before leaving the groundhouse. It is the responsibility of BNSF to train its employees and monitor the active rail lines during the dry season in accordance with the requirements of the statute. It should be noted that there is a long history of homes being constructed adjacent to railroads without serious conflicts or issues.

Comment:

- *The substantial increase in impervious surfaces from rooftops to roads; what's the mitigation plan?*

Response:

Comment noted. The Project Proposer is required to prepare a stormwater management and erosion control plan and SWPPP for the Proposed Project. The stormwater plan and SWPPP must comply with the requirements of the City, South Washington Watershed District (SWWD) and MPCA. All appropriate permits must be obtained prior to the commencement of site work. (Table 6 in the EAW).

The Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements
- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan
- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Comment:

- *Building a senior apartment building on a slab foundation on wetlands; slabs will freeze and thaw and crack. Vibration from trains will exacerbate the problems; what's the mitigation plan?*

Response:

Comments noted. As shown on Figure 5 of the EAW a small area of wetland impact is proposed to cross the wetland with a roadway to access the proposed Senior Living building. The proposed Senior Living Building will not be located on or in a wetland. The proposed building(s) will be required to meet all wetland setbacks and follow all buffers as regulated by the South Washington Watershed District (SWWD). The locations of infiltration basins will be determined through the Land Use Application process

Comment:

- *There's a Section 11B to stormwater about water quality and volume control; it says the developer indicates that if they cannot meet the requirements, the purchase of off-site mitigation credits is an option. In a sensitive critical area, mitigation should be an absolute requirement. There should be no purchase of off-site mitigation credits. Where would a statement like this ever be considered for the type of area under review?*

Response:

Comment noted. The Project Proposer is required to prepare a stormwater management and erosion control plan and SWPPP for the Proposed Project. The stormwater plan and SWPPP must comply with the requirements of the City, South Washington Watershed District (SWWD) and MPCA. All appropriate permits must be obtained prior to the commencement of site work. (Table 6 in the EAW).

The Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements

- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan
- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Comment:

- *Traffic study does not reflect the development's future traffic load with industrial development going into the east.*

Response:

It is noted that the Proposed Project site is located southwest of the NorthPoint Logistics Center which the City approved in December 2021. The Traffic Impact Study prepared for the Proposed Project has been updated to include the NorthPoint Logistics Center and is provided as Attachment C.

Comment:

- *There is only one way in and out of the development. There is a "potential" for one more outlet. What if all those homes had to be evacuated? How do the residents all get out at one time with one outlet; 369 single-family homes, 130 senior units, and a multifamily building?*

Response:

As shown Figure 5. Concept Sketch Plan in Appendix A of the EAW there are two access road connections into the new development from Grey Cloud Trail South. The road network internal to the Proposed Project site is interconnected to ensure two access locations are provided to residents in the new neighborhoods.

Comment:

- *Please request a copy of my EAW comments and review the many issues with the EAW. If you're going to allow the development to move forward, then you must help protect both the Mississippi River and future homeowners in that development. This is only a portion of what she submitted.*

Response:

Comments noted. Please see response to written EAW comments in #16 of this package.

26. O'BOYLE, SHARON (CITIZEN)

Comment:

- *After reading the historical part, one of the questions was about if there'd been anything to meet guidelines if there'd been any important person living there. She didn't know if this would count, but her*

Grandma O'Boyle was the first woman to be a Postmistress in St. Paul Park; she thinks that rates as something important and is of historical value.

Response:
Comment noted. A person of significance living or working at a property is sometimes part of the historical designation process. The City hired New History to study the existing home on the property. That report did not uncover any associations with significant persons or events.

Comment:

- *She noticed with the EAW that they addressed the endangered species that have been seen in that area, on the property, and if you put 500 units on that land, you're going to lose the endangered species.*

Response:
Comment noted. As stated in Item 13.d. of the EAW, the Project Proposer must work with a qualified ecologist to develop a survey plan that is acceptable to the Minnesota Department of Natural Resources. The developed survey plan will be tailored to the existing site conditions and an acceptable development and construction plan, including appropriate mitigative strategies, will be developed to the satisfaction of the MnDNR. The Project Proposer will be required to follow the agreed to survey plan and site development and construction plan developed with the MnDNR and will be required to follow the City's MRCCA ordinance.

Comment:

- *You have a chance to include it with the SNA, along with the Grey Cloud Island Regional Park; make it one whole thing, whether that be the State, with the DNR, or in combination with the City, like we have with the Grey Cloud Island Regional Park, as that's a combination of entities that put that together.*

Response:
Comment noted.

Comment:

- *The other thing that she noticed in the EAW is the fact that the land is sand; the EAW says that all of that sand would have to be removed for there to be any housing put in. To her, that's a red flag; if you have to remove that much soil, it's not a good place to put a development with the fact that you're going to have to use sump pumps because it's in a flood plain.*

Response:
The Proposed Project must obtain the following:

- MPCA's Construction Stormwater Permit Requirements
- South Washington Watershed District (SWWD) rules, including wetland buffer requirements, and the SWWD Watershed Management Plan
- City of Cottage Grove's Surface Water Management Plan and Grading, Filing and Excavation Ordinances.

Each of these permits includes a list of specific and detailed stormwater quality and quantity requirements that must be complied with as part of the design. There is a list of specific and detailed stormwater quality and quantity regulations that must be complied with as part of the design of the Proposed Project. Additionally, there are erosion and sediment control regulations that must be incorporated into the design to obtain the required approvals and permits. Some of the regulations applicable to the Proposed Project are more stringent due to the location and geography of the site. The Project Proposer must meet all of the regulations and obtain all necessary approvals and permits as detailed in Table 6 of the EAW.

Comment:

- *The other thing she thought about was she had worked at Pullman Elementary with the Rainbow Kids Club many years ago. Where are all the children going to go? She's heard from residents in Cottage Grove that Pullman is at capacity, so if you've got 500 homes, you're going to have to build another school.*

Response:

Comment noted. As stated in the Public Hearing transcript there appears to be adequate capacity at Pullman Elementary School.

Comment:

- *After reading it, they're saying it's going to be two people per household; to her, it seems like they're minimizing. Based on two people per household, that's an additional 125,000+ gallons of water per day, about 136,000+ gallons of sewage per day, and 4,000 extra cars on the road.*

Response:

Comment noted. The average persons per household is based on the unit-mix of the Proposed Project, as well as demographic information provided by the Metropolitan Council. Water and sewer usage assumptions are based on actual historical use within the City.

III. FINDINGS OF FACT

a. Project Description

The Former Mississippi Dunes Golf Course Project is a new neighborhood in Cottage Grove that is planned for a mix of market rate single-family detached homes, senior living opportunities, parks and open space. Located adjacent and north of the Mississippi River corridor, the neighborhood will provide a maximum of 239 new detached single-family homes, 130 age-targeted active detached townhomes and an approximately 130-unit Senior Living Building. An extensive network of open spaces and trails is planned and will provide public access to the river and the surrounding community.

b. Corrections to the EAW

Table 6: Required Permits and Status is corrected to add the following:

Units of Government	Type of application	Status
State		
Minnesota Department of Health (MDH)	Sealing of Wells	To be applied for if unsealed wells are identified
Regional		
Minnesota Pollution Control Agency (MPCA)	Sanitary Sewer Extension Permit	To be applied for
Local		
Washington County	Septic System Abandonment Permit	To be applied for

Appendix C: Traffic Impact Study (TIS) of the EAW has been updated to include the development approval of the NorthPoint Logistics Center. The updated TIS is provided as Attachment 3 of this response package. The modification did not result in any significant changes to the conclusions or mitigative recommendations.

Section 14: Historic Properties. The City commissioned New History to complete a historic evaluation of the William Cowan/Herb Fritz house, which was completed after the release of the EAW. A copy of this report is included as Attachment 4 to this response package.

IV. DECISION REGARDING NEED FOR ENVIRONMENTAL IMPACT STATEMENT

a. Type, Extent and Reversibility of Impacts

The City of Cottage Grove finds that the analysis completed for the EAW is adequate to determine whether the project has the potential for significant environmental impacts.

The EAW described the type and extent of impacts anticipated to result from the Proposed Project. This document provides clarifications and summarizes the dominant and recurring issues within the EAW. Geology, Natural Resources, Water Resources, and Transportation were the items within the EAW and within comments received that were found to be impacted by the Proposed Project. By following the mitigation outlined within the EAW and in the response to comments, the impacts will be avoided, minimized, and/or mitigated.

b. Cumulative Potential Effects of Related or Anticipated Future Projects

The cumulative potential effects of related or anticipated future projects noted during the comment period includes the recent approval of the NorthPoint Logistics Center located northeast of the Proposed Project. The Traffic Impact Study (TIS) was updated to reflect the recently approved project and no significant changes to the initial recommended mitigation identified in the November 2021 study were identified. No other cumulative effects were identified during the comment period. The cumulative impacts identified in the EAW were evaluated and determined that if the identified mitigative steps are implemented and all permitting processes are followed that there are no anticipated cumulative environmental impacts as a result of the Proposed Project.

c. Extent to which Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority

The mitigation of environmental impacts will be designed and implemented in coordination with the applicable regulatory agencies. All mitigation efforts will be subject to the plan approval and permitting process. Permits and approvals that have been obtained, or those that may be required prior to construction, are identified on Table 1.

Table 1: Permits and Approvals

Permit	Agency	Action Required
ROW Permit	Washington County	Permit
Drainage Permit	Washington County	Permit
Road Access Permit	Washington County	Permit
Pre-Demolition Permit	Washington County	Permit
Other utility or construction permits (to be confirmed with City)	City of Cottage Grove	Permit(s)
NPDES Construction Permit	MPCA	Permit
Construction Stormwater Permit	MPCA	Permit
Demolition Notification	MPCA	Approval
Sanitary Sewer Extension Permit	MPCA, Metropolitan Council	Permit
Water Supply Connection	Minnesota Department of Health	Permit
Watermain Plan Review	Minnesota Department of Health	Approval
Stormwater Plan Review	South Washington Watershed	Approval
EAW	City of Cottage Grove	Record of Decision
EIS Decision	City of Cottage Grove	Record of Decision
2040 Comprehensive Plan Amendment	City of Cottage Grove	Approval
Rezoning	City of Cottage Grove	Approval
Planned Unit Development	City of Cottage Grove	Approval
Preliminary Plat	City of Cottage Grove	Approval
Final Plat	City of Cottage Grove	Approval
SWPPP	City of Cottage Grove	Permit
Land Disturbance and Erosion and Sediment Control Permit	City of Cottage Grove	Permit
Demolition Permit	City of Cottage Grove	Permit
ROW Permit	City of Cottage Grove	Permit
Building Permits	City of Cottage Grove	Permit
Sign Permit	City of Cottage Grove	Permit
HVAC, Plumbing, Electrical Permits	City of Cottage Grove	Permit
Fire sprinkler and alarm permits	City of Cottage Grove	Permit

d. Extent to which Environmental Effects can be Anticipated and Controlled as a Result of Other Environmental Studies.

The City finds:

1. The Proposed Project is reasonably similar to residential projects in the Twin Cities Metropolitan Area. Other projects of similar scope, accompanied by similar land use, natural resources, surface water, traffic studies, and associated mitigation, have, in general, successfully mitigated potential environmental impacts.
2. The EAW, in conjunction with this document, contains or references the known studies that provide information or guidance regarding environmental effects that can be anticipated and controlled.

3. No EIS that addresses a similarly sized project is known to be available in the City of Cottage Grove or the surrounding area.
4. In light of the results of environmental review and permitting processes for similar projects, the City of Cottage Grove finds that the environmental effects of the project can be adequately anticipated and controlled.

Based on the original EAW, comments received from agencies and individuals, the responses to comments, and the criteria above, the City of Cottage Grove finds that the Former Mississippi Dunes Golf Course Proposed Project does not have the potential for significant environmental effects and does not require the preparation of an EIS.

V. RECORD OF DECISION

Based on the EAW, the Response to Comments and the Findings of Fact, the City of Cottage Grove City Council concludes the following:

1. All requirements for environmental review of the Proposed Project have been met.
2. The EAW and the development processes related to the Proposed Project have generated information which is adequate to determine whether the Proposed Project has the potential for significant environmental effects.
3. Areas where potential environmental effects have been identified the City has included proper mitigative responses to be included within the final design of the Proposed Project. Mitigation will be required to be provided where impacts are expected to result from project construction, operation, or maintenance. Mitigative measures will be required to be incorporated into the Proposed Project design and have been or will be coordinated with state and federal agencies during the applicable permit process.
4. Based on the criteria in Minnesota Rules part 4410.1700, the Proposed Project does not have the potential for significant environmental effects.
5. An Environmental Impact Statement is not required for the proposed Former Mississippi Dunes Golf Course Proposed Project.

For the City of Cottage Grove

Christine Costello
Community Development Director
City of Cottage Grove

Date

ATTACHMENTS

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

February 2022

ATTACHMENT 1. COMMENTS RECEIVED

ATTACHMENT 2. IMPAIRED WATERS MAP

ATTACHMENT 3. REVISED TRAFFIC IMPACT STUDY

ATTACHMENT 4. NEW HISTORY REPORT ON WILLIAM COWAN/HERB FRITZ HOUSE

ATTACHMENT A: COMMENTS RECEIVED

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

AGENCY COMMENTS

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

Friends of the Minnesota Scientific & Natural Areas
Friends of the Mississippi River
Metropolitan Council
Minnesota Department of Natural Resources (MnDNR)
Minnesota Office of the State Archaeologist (OSA)
Minnesota Pollution Agency (MPCA)
Minnesota State Historic Preservation Office (SHPO)
National Park Service
Washington Conservation District
Washington County

Friends of Minnesota
Scientific & Natural Areas

www.snafriends.org

City of Cottage Grove
Attn: Emily Schmitz
12800 Ravine Parkway South
Cottage Grove MN, 55016

Re: Comments on environmental assessment of the proposed Mississippi Dunes development project.

Dear Emily,

Friends of Minnesota Scientific and Natural Areas (FMSNA) is a Minnesota non-profit, tax-exempt ["501(c)(3)"] corporation, established to advocate and support the establishment, management, perpetuation of Minnesota's Scientific and Natural Areas (SNAs), statewide, in an undisturbed natural state.

Thank you for the opportunity to comment on the environmental assessment of the proposed Mississippi Dunes development project.

In reviewing the EAW on the Mississippi Dunes project we notice an inconsistency between the text and Figure #5 Concept Sketch Plan. The text includes a plan to sell ~12 acres of land adjacent to the Grey Cloud Dunes SNA to the DNR in accord with the City's master plan (Figure #4). However, the Concept Sketch of Pulte Homes (Figure #5) shows the lots for detached homes placed right up to the current boundary of the SNA.

This inconsistency should be remedied so there is no question that the Proposer intends to sell the 12 acres to the DNR to protect the natural resources and wildlife in the Grey Cloud Dunes SNA.

Below are the two quotes from the EAW which are inconsistent with Figure #5 which is attached:

Page 9

c. *Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.*

The Project will provide a diverse mix of housing types within the City and will help meet current and future demand for housing as established within the City's 2040 Comprehensive Plan. It includes 239 60-foot lots intended for market rate detached single-family homes, 130 50-foot lots planned for detached townhomes marketed to active seniors 55+, and a 130-unit senior

living building. During the Mississippi Dunes Master Plan process the City identified the land abutting the Mississippi River as an important public amenity that should be protected and accessible. This Project will protect the river frontage for a combination of active and passive park uses, river buffer **and extension of the MnDNR Scientific Natural Area (SNA).** As shown on the Concept Sketch Plan, approximately 25.3 acres of land will be protected as river buffer/ park, 6.8 acres as City Park, **and approximately 12-acres are planned for purchase by the MnDNR.**

d. *Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.*

The adjacent Grey Cloud SNA is an area with known high-quality wildlife, plant communities and rare features. Given the adjacency of the Project site to the Grey Cloud SNA, the Project Proposer is working with the City and the MnDNR to properly site the open space corridor to protect the natural resource area and **have identified the potential to sell approximately 12-acres of land to the MnDNR. The area identified as important to protecting the natural resources and wildlife in the Grey Cloud SNA would be sold from the Project Proposer to the MnDNR and incorporated as part of the SNA into perpetuity.**

Figure 5. Concept Sketch Plan DRAFT

Thank you for your attention to this matter,

Sincerely Yours,

Tim Johnson
Friends of Minnesota Scientific and Natural Areas
(763) 486-8139

FRIENDS OF THE MISSISSIPPI RIVER

Working to protect the Mississippi River and its watershed in the Twin Cities area.

101 East Fifth Street
Suite 2000
Saint Paul, MN 55101

651-222-2193
www.fmr.org
info@fmr.org

January 5, 2021

Emily Schmitz, Senior Planner
City of Cottage Grove
12800 Ravine Parkway S.
Cottage Grove, MN 55106

Dear Emily:

Friends of the Mississippi River (FMR) appreciates the opportunity to comment on the Environmental Assessment Worksheet (EAW) for Pulte Homes' redevelopment proposal for the former Mississippi Dunes golf course.

Mississippi Dunes is a rare and ecologically valuable area. Sand dunes like these are an exceptionally rare landscape in the Twin Cities and across the state. The site also includes 1,900 feet of Mississippi River shoreline, provides habitat for several threatened and endangered species, and adjoins the Grey Cloud Dunes Scientific and Natural Area (SNA). All of these assets make Mississippi Dunes more fragile than most other redevelopment sites in Cottage Grove. Any redevelopment here must be done with the greatest of care.

Given the unique nature of this property and the area's rare ecological resources, this proposed project has the potential for significant environmental effects. Therefore Cottage Grove **should require an Environmental Impact Statement** for this proposed project.

We also request revisions to the following EAW sections:

10. Geology, soils, and topography/land forms
11. Water resources

The topography and soil types in the project area present special considerations. Because sandy soils are so absorbent, subsurface water movement through the site will be significant. The site's slope towards the river suggests that without mitigation, subsurface water runoff will move towards the river. Slope stability, water volume through the site, and impacts to neighboring sites from this water movement need to be carefully studied.

The EAW should include Minimal Impact Design Standards as a mitigation strategy for the potential project impacts to water resources. Mitigation should include a plan to incorporate stormwater treatment areas throughout the project area to treat water as closely to its source as possible, reducing the risk of harm from subsurface water movement. It will not be very feasible to pipe stormwater from one end of the site over to the other, so the project should not direct all stormwater to just one or two treatment areas as shown in Figures 4 and 5.

This area of the Mississippi River has high chloride levels. To mitigate harm from increased roadways and road salting in and around the project area, all chloride runoff should be captured on site. The project should also include a salt management plan to limit use of road salt on both public roadways and private driveways and sidewalks.

We also encourage the appropriate authorities to closely supervise Pulte Homes' adherence to its Stormwater Pollution Prevention Plan. Pulte Homes has a track record of Clean Water Act violations in at least five states.

13. Fish, wildlife, plant communities, and sensitive ecological resources

Protection concerns for the rusty-patched bumble bee are not limited to the species' "active season." Rusty-patched bumble bees do not migrate; they are likely present at this site year-round. In the winter the queen bees hibernate underground a few inches below the surface. If the queens are killed by construction activity over the winter, the entire colony ceases to exist. The EAW must demonstrate the project's full compliance with the federal Endangered Species Act. The EAW should also include stronger analysis of rusty-patched bumble bees' habitat needs, construction timing, and protective practices that can be undertaken as mitigation strategies.

Bird Species in Greatest Conservation Need, including the endangered Henslow's sparrow, are documented to be present at the Mississippi Dunes site (not simply in the vicinity). Public eBird records by experienced birders document these rare birds' consistent presence. These birds are known to be very sensitive to habitat "patch size" and edge conditions for reproductive success. The proposed project will undoubtably reduce the birds' habitat area and likely harm their already-fragile populations.

The EAW should include more mitigation strategies to protect these species. Additional mitigation strategies could include timing vegetation removal and grading outside of the birds' nesting season, arranging the site plan to enable as much contiguous habitat as possible, and employing an ecologist to design vegetation that doesn't further degrade adjacent habitat at the SNA by creating improper edge conditions on the Mississippi Dunes property.

The EAW should also include a plan to mitigate impacts of increased human visitorship at the neighboring SNA due to the addition of hundreds of residents next to the SNA. An increase in

off-trail human traffic in the SNA could be particularly harmful because of the site's fragile geology and rare plant species. Mitigation could include design elements (such as the platting home lots, adding trail connections, and using fencing or other barriers) to block egress to the SNA outside of existing trails.

This section should also state that the project's vegetation management practices must be fully compliant with the city's Mississippi River Corridor Critical Area (MRCCA) ordinance.

14. Historic properties

The project area has an extensive history of human use, including Indigenous settlement. Grey Cloud Island contains rare pre-contact archaeological resources, including Washington County's largest known concentration of burial mounds, and was the site of the only documented Indigenous village in the county. It is reasonable to believe that the Mississippi Dunes project area may also contain archaeological resources given its proximity to these documented sites.

As noted in the draft EAW's correspondence with the State Historic Preservation Office, the majority of archaeological sites in the state have not been recorded. A lack of documented resources on the project site should not be taken as an assurance that such resources do not exist.

Given the project's proximity to sites of immense historic significance, further study should be conducted before concluding that the proposed project will not adversely affect archaeological or cultural resources. The Prairie Island Indian Community, as well as any other interested tribes or Indigenous-led organizations, should be invited to consult on this study.

15. Visual

We disagree that "there are no scenic views or vistas identified in the city's MRCCA plan" (31). The Public River Corridor View from Hazen P. Mooers Park will be affected by this project. Mississippi Dunes is clearly visible in the photo of this view included in the city's MRCCA plan. The Public River Corridor View from the Grey Cloud Dunes SNA may also be affected. A visual analysis of the project's impacts to these views should be conducted as part of this EAW and appropriate mitigation strategies employed.

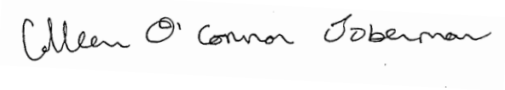
The goal of mitigation should be to preserve a view as similar to the existing view as possible, prioritizing vegetative screening and minimizing the visibility of new structures. Per the DNR, strategies to mitigate visual impacts can include:

- Using building materials that blend in with natural surroundings, such as green or brown materials

- Placing the long axis of structures perpendicular to the river
- Reducing the bulk of structures, such as by using flat roofs or reduced roof pitches
- Increasing setbacks from the river

Thank you for your attention to our comments.

Sincerely,



Colleen O'Connor Toberman
River Corridor Director

December 28, 2021

Emily Schmitz, Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

RE: City of Cottage Grove - Environmental Assessment Worksheet (EAW) – Former Mississippi Dunes Golf Course
Metropolitan Council Review No. 22704-1
Metropolitan Council District No. 12

Dear Ms. Schmitz:

The Metropolitan Council received an EAW for the former Mississippi Dunes golf course project in Cottage Grove on November 23, 2021. The proposed project is located on the site of the former Mississippi Dunes Golf Course. The Project is a new neighborhood in Cottage Grove that is planned for a mix of market rate single-family detached homes, senior living opportunities, parks and open space. Located adjacent and north of the Mississippi River corridor, the neighborhood will provide a maximum of 239 new detached single-family homes, 130 age-targeted active 55+ detached townhomes, and an approximately 130-unit Senior Living Building.

The staff review finds that the EAW is complete and accurate with respect to regional concerns and raises no major issues of consistency with Council policies. An EIS is not necessary for regional purposes.

This concludes the Council's review of the EAW. The Council will take no formal action on the EAW. If you have any questions or need further information, please contact Jake Reilly, Principal Reviewer, at 651-602-1822 or via email at *jake.reilly@metc.state.mn.us*.

Sincerely,

Michael D. Larson for

Angela R. Torres, AICP, Manager
Local Planning Assistance

CC: Tod Sherman, Development Reviews Coordinator, MnDOT - Metro Division
Francisco Gonzalez, Metropolitan Council District No.12
Jake Reilly, Sector Representative/Principal Reviewer
Reviews Coordinator

N:\CommDev\LPA\Communities\Cottage Grove\Letters\Cottage Grove 2021 Mississippi Dunes EAW 22704-1.doc.docx

DEPARTMENT OF NATURAL RESOURCES

Division of Ecological and Water Resources
Region 3 Headquarters
1200 Warner Road
Saint Paul, MN 55106

Transmitted by Email

December 22, 2021

Emily Schmitz, Senior Planner
City of Cottage Grove
12800 Ravine Parkway
Cottage Grove, MN 55016

Dear Emily Schmitz,

Thank you for the opportunity to review the Former Mississippi Dunes Golf Course EAW. The DNR greatly appreciates the early coordination and consideration of the Grey Cloud Dunes Scientific and Natural Area (SNA) throughout the development of this project. As a prominent neighbor to this development, the DNR has an interest in any project that could affect the use of the SNA by both wildlife and the community as well as our management of this natural resource. We recognize the willingness on the part of the City of Cottage Grove to facilitate the expansion of the SNA and to ensure that natural resource concerns are addressed through the environmental review process.

Less than 1% of Minnesota's native prairie remains and the remaining prairie mostly consists of widely scattered small fragments surrounded by agriculture and development. Many of the species that rely on these prairies have been extirpated from our state or are on the brink of being lost, and so protecting remaining prairie remnants is critically important. It was not feasible for DNR and partner organizations to purchase the entire project area, therefore we prioritized the highest quality habitat for the 12 acres expansion of the SNA. We recognize the challenge that many cities are facing in balancing heightened development pressures with natural resource management and protection. With that in mind, we respectfully submit the following comments for your consideration:

1. Page 8, Construction Timing of Site Development Activities. The project proposes to start grading activities in the Spring/Summer of 2022. The Natural Heritage Review (NHIS) letter, dated November 19, 2021, identifies several threatened and endangered plant and animal species within the direct vicinity of the project. Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. Avoidance and survey requirements will need to be met before any grading of the site or tree removal can proceed. Species-specific work exclusion dates and survey timeframes will affect the timing of construction. Please consult with the Endangered Species Environmental Review Coordinator, Lisa Joyal (lisa.joyal@state.mn.us), regarding this process.

2. Page 11, Table 6: Required Permits and Status. Table six should note the need for the developer and/or the City of Cottage Grove to obtain a DNR Water Appropriation Permit should there be a need for construction dewatering of water (either surface or ground water) in volumes exceeding 10,000 gallons per day, or one million gallons per year. A DNR Water Appropriation Permit is required regardless of whether the dewatering is for water mains, sanitary sewers, other utilities, grading of the site, constructing storm water ponds, or establishing footings for new buildings.
3. Page 11, Table 6: Required Permits and Status. Table six should also note that a DNR Takings Permit may be necessary if state-listed threatened and endangered species will be impacted as the result of this project.
4. Page 13, Land Use. We appreciate the effort on the part of the City of Cottage Grove to protect the open space along the Mississippi River Corridor by creating a park to maintain habitat and enable the public's access to the river.
5. Page 13, Land Use. The EAW should provide additional information to discuss whether the project complies with the requirements of the Mississippi River Critical Corridor Area (MRCCA) plan and zoning regulations. This discussion should include a review of Primary Conservation Areas (PCAs) identified in the MRCCA plan.
6. Page 15, Geology. Part of the project area is located in a region prone to surface karst feature development. This was confirmed by project borings that encountered soft limestone bedrock near the surface. Great care should be taken to avoid releasing any pollutants in this area that could quickly reach groundwater. We appreciate that care will be used in locating stormwater features. We recommend that site grading also avoids exposing karst-prone bedrock.
7. Drinking Water, Page 19. Please note that if the private wells are not going to be used, then they are required to be sealed rather than capped.
8. Page 20, Post Construction Conditions. The planned increase in impervious surfaces will also increase the amount of road salt used in the project area. Chloride released into local lakes and streams does not break down, and instead accumulates in the environment, potentially reaching levels that are toxic to aquatic wildlife and plants. Consider promoting local business and city participation in the Smart Salting Training offered through the Minnesota Pollution Control Agency. There are a variety of classes available for road applicators, sidewalk applicators, and property managers. More information and resources can be found at this website. Many winter maintenance staff who have attended the Smart Salting training — both from cities and counties and from private companies — have used their knowledge to reduce salt use and save money for their organizations.

   We also encourage cities and counties to provide public outreach to reduce the overuse of chloride. Here are some educational resources for residents as well as a sample ordinance regarding chloride use.
9. Page 21, Post Construction Conditions. The DNR recommends that stormwater be used for irrigating the landscaping, as is done in the City of Hugo and the City of Medina. This will reduce the volume of pollutants and stormwater leaving the site.

10. Page 22, Post Construction Conditions. We recommend using BWSR-approved, native seed mixes for seeding stormwater features, project landscaping, and soil stabilization. Due to the proximity to the SNA, please make sure that all seed mixes are free of noxious weeds and invasive species.
11. Pages 26-29, Rare Features. This section mentions the previous agricultural and golf course uses of parts of the project area, but fails to identify that the area planned for development is mapped as a Minnesota Biological Survey (MBS) Site of High Biodiversity Significance as well as a DNR Native Plant Community (NPC). Despite the previous uses and disturbance, sections of the project area within the golf course were left intact and may yet contain rare plants and valuable wildlife habitat. Though the previous use as a golf course disturbed these plant communities, the conversion of an additional 43 acres to impervious surfaces is a more significant impact and should not be minimized. The MBS Site was mentioned by DNR in the November 19, 2021 NHIS letter and in early coordination documents. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as "High" contain very good quality occurrences of the rarest species, high-quality examples of rare native plant communities, and/or important functional landscapes. Dry Sand – Gravel Prairies (Southern) are listed as imperiled and every effort should be made to preserve what remnants are left. This particular MBS Site will be completely eliminated by the housing development under the current proposal. This site has been disturbed by previous land use and may no longer qualify as a prairie remnant. However, the golf course left areas of prairie intact and it is likely that native plant communities and seed banks persist and could be fully restored.
12. Page 29, Rare Features. The project proposes to avoid impacts to the Rusty-patched bumble bee, Leonard's skipper, Regal fritillary and the Monarch butterfly by completing the vegetation disturbance early in the 2022 season. Due to the potential need for plant surveys during the growing season, these mitigation measures are unrealistic. Permanently converting even degraded grassland to impervious surfaces will remove habitat within the project area and should be considered a long-term impact. Because the Rusty-patched bumble bee is a federally-listed as endangered, please coordinate with the U.S. Fish and Wildlife Service regarding mitigation for long-term impacts to this species.
13. Page 30, Rare Features. The summary of DNR's requirements should mention **that tree/shrub removal is prohibited from April through August 15th** to avoid impacting endangered bird species that have been documented in the direct vicinity of the project. Please coordinate with DNR if this is not feasible as bird surveys may be necessary prior to disturbance.
14. Page 32, Dust and Odors. If water is taken from the Mississippi River for controlling dust, then the use of more than 10,000 gallons of water in a day must be approved under a DNR Water Appropriation Permit.
15. Page 32, Dust and Odors. Please do not use products that contain chloride for dust control.
16. The DNR supports the development of a park that will allow the community to access and engage with the Mississippi River and the unique ecosystem of the area. Please include the SNA in trail planning in order to ensure that trail locations meet the management needs of all parties and that encroachment onto the SNA is prevented. We look forward to continuing

coordination on the addition to Grey Cloud Dunes SNA, specifically in regards to trail routes leading to or along the SNA, and other such recreational developments.

17. The railroad corridor runs through the SNA directly adjacent to the project area is owned and operated by BNSF Railway. Please include them in any planning that involves railroad crossings.
18. Stormwater from the development should not be directed towards or allowed to pool on the current or future SNA.

Thank you again for the opportunity to review this document and for your continued coordination. Please let me know if you have any questions.

Sincerely,

Melissa Collins
Regional Environmental Assessment Ecologist | Ecological and Water Resources
Minnesota Department of Natural Resources
1200 Warner Road
St. Paul, MN 55106
Phone: 651-259-5755
Email: melissa.collins@state.mn.us

CC: Paul Heuer, Pulte Homes of Minnesota, LLC

Equal Opportunity Employer

DEPARTMENT OF ADMINISTRATION
STATE ARCHAEOLOGIST

328 West Kellogg Blvd St Paul, MN 55102
OSA.Project.Reviews.adm@state.mn.us

Date: 12/14/2021

Emily Schmitz
City of Cottage Grove
651-458-2874
eschmitz@cottagegrovemn.gov

Project Name: Former Mississippi Dunes golf course

Notes/Comments
Thank you for the opportunity to comment on the above referenced project. Review of our files indicates there are no previously recorded archaeological sites, archaeological site leads, or burials within the proposed project area. However, the project is situated within a district replete with archaeological and cemetery sites and is adjacent to the Mississippi River. Therefore, a phase I archaeological reconnaissance conducted by a qualified archaeologist is recommended. The Minnesota Historical Society maintains a list of archaeologists here: https://www.mnhs.org/preservation/directory.
Recommendations
☐ Not Applicable ☐ No Concerns ☐ Monitoring ☐ Phase Ia – Literature Review ☒ Phase I – Reconnaissance survey ☐ Phase II – Evaluation ☐ Phase III – Data Recovery

If you require additional information or have questions, comments, or concerns please contact our office.

Sincerely,

Jennifer Tworzyanski
Assistant to the State Archaeologist
OSA
Kellogg Center 328 Kellogg Blvd W
St Paul MN 55102
651.201.2265
jennifer.tworzyanski@state.mn.us

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

December 22, 2021

Emily Schmitz
Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

Re: Former Mississippi Dunes Golf Course Environmental Assessment Worksheet

Dear Emily Schmitz:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Former Mississippi Dunes Golf Course project (Project) in the city of Cottage Grove, Washington County, Minnesota. The Project consists of a new residential development on a former golf course. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility or other interests, the MPCA staff has the following comments for your consideration.

Cover types (Item 7)
The cover types listed in the table under Item 7 do not seem to portray the existing site conditions accurately. For example, under open space, zero acres are listed. It would seem that a golf course would have a significant amount of open space.

Permits and Approvals (Item 8)
It may be necessary to obtain a Sanitary Sewer Extension Permit from the MPCA prior to construction. The application form and additional information on this process can be found at http://www.pca.state.mn.us/water/permits/index.html#sanitarysewer. Questions on the sanitary sewer extension permit process should be directed to Dave Sahli at 651-757-2687 or David.Sahli@state.mn.us.

Water Resources (Item 11)
Wastewater

- This section mentions the additional work and utilities that must be extended to serve the Project, but there are no details about that work in the EAW. There was a mandatory EAW completed for the Cottage Grove South District Trunk Sewer earlier this year. If that sewer needs to be extended again for this Project, a separate mandatory EAW may be required. This related work, and whether a mandatory EAW is needed for the extension of the sewer to this site, needs to be discussed in more detail.

Stormwater

- The Project proposes disturbance of 110 acres of the 164-acre site and will discharge stormwater to the Mississippi River, which has construction-related impairments. Because the Project will disturb 50 or more acres, the Stormwater Pollution Prevention Plan (SWPPP) will need to be submitted for review and approval by MPCA prior to obtaining National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit (CSW Permit) coverage.

- The EAW mentions three existing stormwater ponds on the site to be utilized for rate control. The EAW also mentions use of infiltration basins for volume control unless not feasible and that the city allows the ability to use off site mitigation credits to meet volume control requirements if onsite Best Management Practices (BMPs) are not possible. The EAW does mention the presence of hydric soils and karst features at the site that may prohibit infiltration but also discusses use of filtration and bio filtration areas for meeting volume control requirements. However, filtration may not be considered to be a method of volume control by the CSW Permit.
- The Proposer is strongly encouraged to consider opportunities upgradient of hydric areas for bioinfiltration and use of green infrastructure practices to reduce stormwater runoff and provide climate resilience to increasing rainfall. Consider also reducing pervious surfaces contributing to runoff by constructing narrower streets or using pervious pavements. Pervious pavements would also help to reduce need for winter salting and resulting chloride pollution from the new development. Please direct questions regarding CSW Permit requirements to Roberta Getman at 507-206-2629 or Roberta.Getman@state.mn.us.

Contamination/Hazardous Materials/Wastes

- The Project is located in an area of Washington County near areas that have extensive groundwater contamination from multiple sources. Furthermore, these are located in areas where the groundwater is highly vulnerable to contamination from the surface because there is relatively little overlying fine-grained protective soil material.
- Please note that golf courses have the potential for contamination from past pesticide use (including mercury) and from past storage and handling of pesticides and fertilizers. Information regarding soil sampling is available on the Minnesota Department of Agriculture (MDA) website at: Guidance Document 30 - Soil Sampling at Golf Courses for Contamination | Minnesota Department of Agriculture.
- The operation of heavy equipment in and near lakes, streams and wetlands obligates the project proposers to develop a plan for managing fuels and lubricants, including a plan of action to implement in the event of spills. The Project proposer and their contractors should be prepared to respond to spills and to recover and contain spilled material as quickly and thoroughly as possible. For petroleum spills that are five or more gallons, the Project proposer or their contractors are required to contact the State Duty Officer at (651) 649-5451 or (800) 422-0798. Information on reporting spills and leaks is available on the MCPA website at: http://www.pca.state.mn.us/index.php/view-document.html?gid=2807.

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW, please contact me by email at Karen.kromar@state.mn.us or by telephone at 651-757-2508.

Sincerely,

Karen Kromar

This document has been electronically signed.

Karen Kromar
Project Manager
Environmental Review Unit
Resource Management and Assistance Division

KK/RG/DS/CVH:rs

cc: Dan Card, MPCA, St. Paul
Roberta Getman, MPCA, Rochester
Dave Sahli, MPCA, St. Paul
Cathy Villas-Horns, MDA, St. Paul

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

December 27, 2021

Emily Schmitz, Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

RE: EAW - Former Mississippi River Dunes Golf Course
Cottage Grove, Washington County
SHPO Number: 2022-0383

Dear Emily Schmitz:

Thank you for providing this office with a copy of the Environmental Assessment Worksheet (EAW) for the above-referenced project.

Due to the nature and location of the proposed project, we recommend that a Phase I archaeological survey be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation and should include an evaluation of National Register eligibility for any properties that are identified. For a list of consultants who have expressed an interest in undertaking such surveys, please visit the website **preservationdirectory.mnhs.org**, and select "Archaeologists" in the "Search by Specialties" box.

We will reconsider the need for survey if the project area can be documented as previously surveyed or disturbed. Any previous survey work must meet contemporary standards. **Note:** plowed areas and right-of-way are not automatically considered disturbed. Archaeological sites can remain intact beneath the plow zone and in undisturbed portions of the right-of-way.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

If you have any questions regarding our review of this project, please contact Kelly Gragg-Johnson, Environmental Review Program Specialist, at kelly.graggjohnson@state.mn.us.

Sincerely,

Sarah J. Beimers
Environmental Review Program Manager

United States Department of the Interior

NATIONAL PARK SERVICE
Mississippi National River and Recreation Area
111 E. Kellogg Blvd., Ste 105
St. Paul, Minnesota 55101-1256

IN REPLY REFER TO:

1.A.1

January 6, 2022

Emily Schmitz
Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

RE: Former Mississippi Dunes golf course EAW

Dear Emily Schmitz:

The Mississippi National River and Recreation Area (MNRRA) is pleased to provide comments on the Former Mississippi Dunes golf course Environmental Assessment Worksheet (EAW). The proposed project would lie completely within the boundary of the Mississippi National River and Recreation Area (NRRA). Congress established the Mississippi NRRA in 1988 to preserve, protect, and enhance the significant values of the Mississippi River Corridor in the Twin Cities metropolitan area.

The Former Mississippi Dunes golf course (Mississippi Dunes) is in a unique site that would benefit from the inclusion of more natural areas than what is being proposed. While much of the development has been disturbed for agriculture and as a golf course, it has not been maintained for several years. The 164 acres of open space should be developed with precautions as not to disturb any species of concern at Mississippi Dunes since it has been vacant.

Cover Types

While we have concerns over the proposed Mississippi Dunes development, there are a few aspects of the design in the EAW we do appreciate. The space allotted as park is more than what is required by ordinance and designating over a 300-foot setback from the Mississippi River is quite generous. While we are pleased that these portions of the development have been set aside as park space, we do not want to see a housing development that will remove 6.9 acres of woodlands/forests, and 3.8 acres of brush/grasslands. This would remove 100% of these cover types. Table 5 states there will be an increase of 27.8 acres of open/natural space, not including a single acre before the development. This is misleading as the majority of the 164 acres has become more natural since it has been vacant. Incorporating established natural cover types into the development's design would be better than demolishing this established habitat. This is especially true on the western side of the development where dry tall grasses and forests tie into

the Grey Cloud Dunes Scientific and Natural Area (SNA). These established natural areas should be preserved as natural extensions of the SNA.

Water Resources

We would like more attention brought to the fact that this stretch of the Mississippi River, and the Mississippi Dunes site, are also part of the Mississippi National River and Recreation Area (NRRA). Congress established the Mississippi NRRA in 1988 to preserve, protect, and enhance the significant values of the Mississippi River Corridor in the Twin Cities metropolitan area. The Mississippi NRRA shares a boundary with the Mississippi River Corridor Critical Area (MRCCA), and we appreciate that the proposed development will adhere to updated MRCCA ordinances being adopted by the City of Cottage Grove. The national significance of this stretch of the Mississippi River and its resources should be included in this section.

Fish, wildlife, plant communities, and sensitive ecological resources (rare features)

As stated above, Mississippi Dunes has not been managed in several years since the golf course closed. Stating that the heavy use of pesticides and herbicides will decrease is misleading since there has been no active management at the site. Disturbance of the natural spaces and addition of a housing development will likely increase this level of activity from present use. Buffers around sensitive areas should be implemented to prevent conflicting uses from the development and should be encouraged wherever possible. Drift and runoff from chemicals and fertilizers from lawn care could impact habitat on the neighboring SNA given the proximity of housing to the SNA. Buffering would also decrease other negative impacts from human use like erosion from increased foot traffic in natural areas and wildlife harassment from pets and humans. While the SNA is open to the public, it is not a public park that is designed to handle significant human activity, especially given the sensitive habitats located at Grey Cloud Dunes SNA. Housing placed on the boundary will likely increase human use and degradation of the significant natural resources of the SNA.

We recommend that the City of Cottage Grove follow the recommendations in the Natural Heritage Review from the MN Department of Natural Resources in Appendix B. There are several rare species found within the search area for the Mississippi Dunes site. A qualified surveyor should conduct a habitat assessment prior to construction to prevent any damage to the rare and sensitive resources.

Visual

We disagree with the assessment that there are no scenic views or vistas identified in the MRCCA plan. There are two Public River Corridor Views (PRCV) within the immediate area of the Mississippi Dunes site. One is located at Hazen P. Mooers Park that overlooks the southern portion of the Mississippi Dunes site and the north east portion of Grey Cloud Island. Set back of the development will decrease the impacts to this PRCV. The other PRCV is from the Grey Cloud Dunes SNA. While there are no overlooks or established trails in the SNA, the elevated and open bluffs of the SNA provide striking views of the natural areas around the SNA. Removal of vegetation for the development will impact the natural views from the SNA. Maintaining

existing vegetation and the addition of vegetation within the housing development may reduce impacts from the SNA's PRCV.

While the proposed development in the EAW is in line with the requirements of MRCCA, there is still more that can be done to preserve and enhance the natural environment. The Mississippi NRRA is willing to assist by providing input during the continued design of this project.

If you any questions regarding these comments, please contact my staff, Adam Muilenburg at adam_muilenburg@nps.gov or by calling 651-293-8440.

Sincerely,

MATTHEW BLYTHE Digitally signed by MATTHEW BLYTHE
Date: 2022.01.06 15:01:10 -06'00'

Matthew T. Blythe
Superintendent

CC Paul Heuer

WASHINGTON CONSERVATION DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128
651-330-8220 [PHONE]
651-330-7747 [FAX]
WWW.MNWCD.ORG

January 6, 2022

Emily Schmitz
Senior Planner, City of Cottage Grove
12800 Ravine Parkway S.
Cottage Grove, MN 55016

RE: Mississippi Dunes EAW

Dear Ms. Schmitz,

The Washington Conservation District (WCD) has reviewed the Environmental Assessment Worksheet (EAW) for the Mississippi Dunes redevelopment project and has the following comments:

Section 6 - Project Description: The Project Proposer's Concept Sketch Plan (Appendix A Figure 5) has not been inserted at a legible resolution, does not include a legend or key to features, and does not appear to include the 12-acre addition to Grey Cloud Dunes SNA. Please provide a revised Concept Sketch Plan for interpretability and agreement with the proposed Master Plan.

Section 7 – Cover Types: Although a large portion of the site has been disturbed and is now dominated by non-native cover types, correspondence with the Minnesota DNR located in Appendix B notes the possibility of existing and intact native plant communities in isolated areas. Further survey work is needed to identify areas containing rare or sensitive natural features.

Section 8 – Permits and Approvals Required: The project location requires a zoning and comprehensive plan amendment to allow for the proposed medium-density development. The WCD supports a zoning ordinance that minimizes visual and environmental impacts to adjacent CA-ROS and CA-RN districts within the Mississippi River Corridor Critical Area (MRCCA).

Section 9 – Land Use: WCD encourages the Project Proposer to maximize the amount of restored or undeveloped natural space within the project area to protect and enhance the scenic, ecological, cultural, and recreational value of the corridor. The Project Proposer should describe the steps that will be taken to protect Priority Conservation Areas (PCA's), including bluff and shoreline impact zones, significant existing vegetation stands, or native plant communities.

Section 10 – Geology, Soils and Topography/Landforms: The Project Proposer states there are no known sinkholes, limestone formations, or karst conditions within the site, though there are several known formations in the area (Figure 14 of the EAW). The Preliminary Geotechnical Evaluation Report found near-surface, "highly weathered" limestone bedrock and near-surface groundwater features at multiple boring locations across the site. More information is needed to evaluate potential impacts to surface and groundwater features in areas that will be disturbed.

Section 11 – Water Resources: In *Section 11.a.*i The Project Prosper states, "Segments of the waterway are identified on the MPCA 303d Impaired Water List, but Moers Lake, Grey Cloud Channel and Grey Cloud Slough are

not listed on the Impaired List which are the waterbodies within 1-mile of the Project Area" (Page 17 of the EAW). The segment of the Mississippi River between Upper St Anthony Falls and the St Croix River is listed for several impairments, including nutrients and TSS, PFOS, PCBs, and mercury. This segment of the Mississippi River is inclusive of Grey Cloud Channel, Grey Cloud Slough, and Mooers Lake. Discussion of these impairments must therefore be identified and discussed in this section.

A 2015 study completed by the Metropolitan Council found high chloride (Cl) concentrations in Pool 2 of the Mississippi River near Grey Cloud Island. The Project Proposer should address new potential sources of chloride associated with development (e.g. road salts or water softener brine) and propose measures for reducing chloride usage and preventing chloride contamination of wetlands and/or receiving waterbodies.

Section 13 – Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources: *Section 13a-b* of the EAW provides an NHIS summary of "rare species or significant natural features" documented within 1-mile of the project area. This section also identifies endangered, threatened, or special concern species documented on site or likely to occur nearby. This list is by no means exhaustive (as noted in Appendix B), and there are many other Species in Greatest Conservation Need that are known to occur in the area, including dickcissel, bobolink, American kestrel, eastern meadowlark, and others (as documented by the 'Grey Cloud Dunes SNA Bird Checklist' and eBird reports for Grey Cloud Dunes SNA). Further survey work is needed to assess the presence/absence of sensitive ecological features within the project site and to assess the risks associated with site development.

Section 14 – Historic Properties: The Project Proposer acknowledges the site's proximity to several historic structures and archeological sites via MNSHPO correspondence located in Appendix B. These sites include the NRHP-listed Schilling Archaeological District (STN: 21WA1) and Michaud-Koukal Mounds (21WA2), Grey Cloud Town Site (21WA48), and the NRHP-listed Grey Cloud Lime Kiln site. Past archeological surveys of the Spring Lake/Grey Cloud Island area have revealed many other historically significant sites along the corridor, some dating as far back as the Early Woodland period (Fleming et al 2018; Anfinson 2003). The Washington Conservation District supports further investigation (with reference to Appendix B of the EAW) by the SHPO and Tribal Historic Preservation Offices to fully assess the project area's potential to contain sites with historic or archeological significance.

Section 15 – Visual: Light pollution is another environmental impact worthy of consideration for this project given the site's adjacency to Grey Cloud Dunes SNA and other natural areas. Light pollution has the potential to disrupt nesting and mating patterns for many wildlife species. The Project Proposer should address how the lighting plan may be designed to mitigate impacts to wildlife, particularly migratory bird species.

Conclusion: The EAW addresses many important cultural and environmental concerns, including sensitive geological features, rare or at-risk wildlife species and native plant communities, and sites of historical significance. More information is needed, however, to adequately determine the presence/absence of state or federally listed species and archeological resources, assess potential impacts to at-risk wildlife species documented nearby at Grey Cloud Dunes SNA, and to further evaluate the impact of development on sensitive geological features and groundwater resources. Accordingly, additional updates to the EAW are needed unless the City decides to require an EIS to guide a more thorough and robust assessment of potential project impacts to the resource concerns above.

Please contact the WCD if you have any questions regarding these comments.

Sincerely,

Jay Riggs, District Manager
jriggs@mnwcd.org

Washington County

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

December 29, 2021

Emily Schmitz
Senior Planner
City of Cottage Grove
12800 Ravine Parkway South
Cottage Grove, MN 55016

WASHINGTON COUNTY COMMENTS ON ENVIRONMENTAL ASSESSMENT WORKSHEET FOR THE FORMER MISSISSIPPI DUNES GOLF COURSE

Dear Ms. Schmitz,

Thank you for the opportunity to review the Environmental Assessment Worksheet (EAW) for the Former Mississippi Dunes Golf Course in the City of Cottage Grove. Washington County's Department of Public Health and Environment and Department of Public Works have reviewed the EAW and offer the following comments:

Section 9 – Land Use

Consistent with Washington County's 2040 Comprehensive Plan, Washington County encourages the prioritization of investment in the protection and management of high-quality open spaces such as the Mississippi River frontage open space noted in the EAW. Efforts should be made to preserve, conserve, and restore existing natural resources by implementing sustainable practices to promote biodiversity and healthy ecosystems.

Section 10 – Geology, Soils and Topography/Landforms

As stated in the EAW, near-surface, highly-weathered limestone bedrock (7-18 feet below surface) and near-surface groundwater features (2-19.5 feet below surface) are present at the project site. Although there are no known karst features at the project site, the previously mentioned site features indicate the potential for groundwater impacts and should be considered and monitored closely during project implementation.

Section 11 – Water Resources

Recognizing the impacts for increased chloride (Cl) sources through the proposed project, additional analysis is needed related to potential Cl sources and mitigation measures including reducing and preventing Cl contamination of wetlands and other receiving waterbodies.

All wells located during project construction shall be sealed according to Minnesota Department of Health regulations to mitigate potential groundwater contamination.

There are four known Subsurface Sewage Treatment Systems (SSTS) within the project area, there are possibly others. All septic systems, tanks, or components on the property must be identified and properly abandoned. A county permit for septic system abandonment is required and a Minnesota Pollution Control Agency abandonment form must be submitted to the Washington County Department of Public Health and Environment.

Section 12 – Contamination/Hazardous Materials/Wastes

All solid and hazardous waste, including waste resulting from historic use stock piling of material and/or remnants of the club house that burned down, must be removed from the property, and managed at an appropriately permitted waste disposal facility.

A State Superfund project adjacent to the project site was not identified in the Environmental Assessment Worksheet. According to a data search in the "What's in My Neighborhood" interactive map, property east of the redevelopment site now owned by the Minnesota Department of Natural Resources was historically used for disposal of wastes from refinery operations, including solid waste, asphalt and barrels containing asphalt, oil emulsion, and calcium carbonate. More information can be found at https://webapp.pca.state.mn.us/wimn/site/190527

The Minnesota Department of Agricultural became aware of high levels of certain heavy metals in golf courses from normal, legal use of certain herbicides and fungicides use. As stated in the EAW, the primary past use of the project area for a golf course included heavy pesticide use to manage the manicured greens and fairways. The potential for contamination should be considered around the boxes, greens and near pesticide mixing, loading and storage areas. More information can be found at https://www.mda.state.mn.us/sites/default/files/inline-files/golfcoursecontamination_1.pdf

Section 18 - Transportation

The county appreciates the integration of the results of the Southwest Arterial Study and the inclusion of the future county arterial located along 103rd street throughout the EAW. In terms of how the proposed development will connect to this future county arterial, there are differences between Figure 4 and Figure 5 in the way that the north access location ties into the surrounding transportation system. The county prefers the configuration depicted in Figure 4 as we feel it can accommodate an interim access with a realigned Grey Cloud Island Trail, and be the best long-term design for the future arterial route. When considering the location of this access, please note that sight lines are reduced the farther north it is proposed to be located, and it will be imperative to ensure that sight lines are adequate.

The county is interested in learning what any remnant property in the northwest corner of the site is proposed for, and would be interested in any opportunity to access that area for drainage when the future county arterial is built. Alternatively, given the scope of change in drainage patterns associated with the proposed project, Washington County would like to partner on a regional drainage opportunity to accommodate the increased runoff that will be generated by the future county arterial and the proposed development.

The inclusion of abundant, high-quality amenities for non-motorized modes of transportation to access the proposed public park assets is critical to the success of this project. The county appreciates the role

that the connections between the Mississippi River Trail Bikeway, Central Greenway, and Community Trails will play in establishing those connections, as well as the City Code requirement for eight-foot-wide pedestrian trails on streets with blocks longer than 900-feet. With bicycle and pedestrian facilities proposed for the future arterial route, the county will be interested in an opportunity to review and provide comment on the Concept Plan once it is updated to meet this standard to ensure that adequate, non-motorized public access to the park assets is provided.

The results of the coordination between the City and county identified 180 feet of right-of-way to be dedicated with the project. The county is satisfied with that amount of right-of-way and expects it to be dedicated with the project.

Thank you again for the opportunity to review the EAW for the Former Mississippi Dunes Golf Course in the City of Cottage Grove. If you have any questions or comments on Washington County's responses, please contact me at kurt.howard@co.washington.mn.us.

Sincerely,

Kurt Howard
Planner II

C: Stephanie Souter, Program Health Supervisor, Washington County Public Health and Environment
Mark Riegel, Senior Planner, Washington County Public Health and Environment
Sarah Borrell, Senior Environmental Specialist, Washington County Public Health and Environment
Wayne Sandberg, County Engineer, Washington County Public Works
Lyssa Leitner, Public Works Planning Director, Washington County Public Works
Joe Gustafson, Traffic Engineer, Washington County Public Works
Frank Ticknor, Design Engineer, Washington County Public Works
Kevin Peterson, Engineer III, Washington County Public Works

CITIZENS COMMENTS

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

Biron, Tyler (Citizen)
Dobozenski, David (Citizen)
Grams, Adam (Citizen)
Krauss, Oriana Rueda (Citizen)
Monjeau-Marz, Corrine L. (Citizen)
Matter, Bonnie (Citizen)
O'Boyle, Sharon (Citizen)
Schwartz, Barb (Citizen)
Schwen, Bill (Citizen)
Smith, Christopher (Citizen)
Tiefenbruck, Grant (Citizen)
Williams, Cole (Citizen)
Whaley, Brett (Citizen)
Zimmer Environmental Improvement (Private Company)

Goodevening,

I'm unable to attend the EAW meeting tomorrow and the letter we recieved advised to submit written comments so here we go.

My name is Tyler Biron and I reside at 6500 103rd st s with my wife and 2 daughters. The only house on 103rd st s besides Baileys Nursery. You may know us as the people with the goats.

I've been going to and watching videos of the meetings regarding the development of the Dunes since early summer. I find it extremely disappointing we are talking a housing development in this rural, peaceful part of the city. It is so out of place but realize there isnt much we can do about it. My property and my neighbors properties are collateral damage in this whole thing.

Do I want 400 houses across the street? Of course not. Where we live is so peacful, quiet and private ...which is why we bought this property.....and this development will forever change that. But it is inevitable. Our option is to sell and move.

In Steven Dennis's recent video with the attorney it was said that you welcome input from the effected property owners.....so what I ask is this. Will you PLEASE not allow the medium density housing....which is apartments or townhomes?...proposed on 103rd st s. It would be directly across the road from our property. If we have to accept this development and all the people, noise, lights, etc that are going to come with it could you at least not allow this in the development plan a give my family and a buffer?

Thank You.

Sent from Yahoo Mail on Android

Environment

are they going to clear cut all the trees.
so they can level the land for wates and sewer lines
If ours wells are affected or cantaminated
es the City or developer reponaible
are they filling in any wetland
Per your map the storm waters run
into the fresh water spring creek, that run
from the railroad track on the east to the
river on the west
the creek was dam to make the ponds.
Did the DNR & So Washington watershed
O.K. this plan.

When they realign Grey Cloud trail & 103 Street
who will pay for it
We just paid to have Grey Cloud Trail rebuilted.

David Dobozenski

Good afternoon **Emily Schmitz**, This a comment for the Mississippi Dunes EAW. I'd like to request a record of a decision to each comment outlined below:

1. What is the plan to protect the adjacent SNA plant and animal habitats? Specifically, the rusty patch bumblebee. Does this align with the recommendations with the DNR?

2. The road for the development that will be off of Grey Cloud Trail S seems to keep changing locations, has an environmental impact been down to those residents and the enclosed environment surrounding where these roads will be placed.

3. This project will be within the geographic boundaries of Cottage Grove's MS4 Permit (MS400082). The permittees Wasteload Allocations (WLA) are assigned by TMDL reduction requirements in the table below. In addition to the MS4 requirements below, the Lake Pepin TMDL will also assign a TP load reduction, but that won't take effect until 2025 (i think). The EAW makes no mention of the municipal stormwater impacts associated with the NPDES permit or plan to address the increased TP and TSS loading being exported from this project after project completion. The MNLCS states that the current predominant land cover in the project area is currently tall dry grasses, forest, and shrubland landcover, which will most likely be replaced with turfgrass, and impervious surface, which would/could have a higher yield of TP and TSS.

4. Page 6. Section 6. Project Description, Subpart b. "The amount of open space to be included in the area is yet to be determined. Any improvements to publicly dedicated open space will be at the discretion of the governmental organization with ownership of the area and such potential future improvements are outside the scope of this EAW." This statement seems ambiguous. If the area is part of the project area, should it also be considered as part of a "complete project"?
The project doesn't recognize any impaired waters within 1-mile of the project boundary, with Moers Lake, Grey Cloud Channel, and Grey Cloud Slough being the only water bodies within 1-mile. While this is technically true when considering the stream line-work distance from the project boundary, these water bodies are hydraulically directly connected to the Mississippi River Main stem, that any impact on these water bodies would be as if having the same impact on the Mississippi River (AUID 07010206-814, Upper St. Anthony Falls to St. Croix R), which is designated as impaired.

5. Although the project boundaries are not within any wellhead protection areas, or Drinking water supply management areas (DWSMAs), there is a large DWSMA and Wellhead protection area that borders the project directly to the north. What is the EAW report and response to that?

Thank you,

Adam Grams

10655 Grey Cloud Trail S

Cottage Grove, MN 55016

Hello,

This is Oriana Rueda Krauss, current resident of Minnesota. I am writing to comment on the Mississippi Dunes EAW. In general I think there is too much construction planned for such a small space. The natural habitat for wildlife should be considered as a delicate resource to help reduce climate change, for the many ecosystem goods and services a healthy ecosystem like that can provide, and for the enjoyment of residents.

Only half of the houses proposed should be allowed, or not at all if possible. We need to be consequential and understand that we depend on nature 100%, there is no planet B, and we need to protect nature whenever possible if we are to survive. Even though the area is a former golf course, if left alone to regenerate, these beautiful dunes can easily regain native plants and animals from around the area. The amount of impervious surfaces being increased from 4.4 to 47.8 is excessive, and the amount of wooded, grassland and wetland areas should be left as it is, not decreased as proposed on Table 5.

In my opinion, adequate space is not being given for the natural ecosystem to regenerate, reproduce and sustain the amount of plants and animals currently existing in the area. I request much less parking, paved and lawn areas and significantly more (at least 50% of the total area) areas with native plants that are not mowed and are left undisturbed, and the establishment of several pollinator gardens. The proposed open space corridors should be a dedicated wildlife corridor connecting all the natural areas. I am a former restoration technician with a M.S. in Forestry and Natural Resources and will be happy to volunteer some time to help plan some of these projects and the proposed seeding of native plants if needed.

Given that the site is in the "High Potential Zone" for the Rusty Patched Bumble Bee and other important pollinators, no insecticides or pesticides should be used at all.

I also wanted to highlight that the two small wetland areas that may be impacted depending on the final alignment of the County Road and of the main entrance road into the neighborhood certainly need to meet strict mitigation plans, as they are part of the Mississippi River watershed.

If nothing else, at least leave undisturbed the adjacent undeveloped land of approximately 17.8 acres mentioned on the "Infrastructure and Project Area Improvement section". A full site grading is about the worst thing that can be done to an area like this. I request it is only done in areas where it is absolutely necessary.

According to the following paragraph: "*This Project will meet the City's objectives identified in the Master Plan that includes providing diverse, sustainable housing choices and options while providing protection of important natural resources and amenities along the Mississippi River that are consistent with its MRRCA plan and ordinances.*" where exactly are the protections for natural resources?

The proximity of the proposed area to a Scientific Natural Area (SNA) also concerns me and many other residents around the area. A development of these dimensions would certainly have a negative impact on the "high-quality vegetation and habitat" found in and around the SNA and the Mississippi river. The area being adjacent to the Mississippi River also highlights the importance of this area as a natural corridor for a wide variety of wildlife.This is part of the reason why this area is so ecologically important and there are a lot of concerned residents and organizations opposing this project.

The effects of this project could affect important rare and threatened species such as the Northern Long Eared Bat, the Rusty-patched Bumble Bee, and the Monarch butterfly, which should be aggressively protected.

Overall I oppose this development project that clearly has no regard for the natural resources of the area, is excessive, and will certainly hurt the biodiversity and ecology of our valuable natural resources.

There are many new housing developments throughout the City of Cottage Grove, Minnesota. These homes are grand, beautiful, and gigantic, with every amenity a new home buyer ever could wish for, and more.

Take a drive through Cottage Grove, travel around, and to see these massive construction projects being built in every part of the city. This is what the powers that be and land speculators want. They are planning for the great and amazing 2040 Future Planning Event, by which date every open plot of land needs to be filled with – no, crammed full of housing. For as it has been gently explained to current residents, the city needs to prepare for and be prepared for the hordes of new homeowners who are just waiting in the wings for these homes to be built.

But the time has come when the powers that be and the land speculators have funneled down to developing one of the few remaining and most precious properties. This area is located on the former Mississippi Dunes Golf course, near the intersection of 103rd and Grey Cloud Trail South, which is a wild, unique, historic, open, and green waterfront property. This long section of the Mississippi and backwaters are part of a migratory birding route, and due to the development of surrounding areas, this property has increasingly become a safe haven and home for many and various species of wildlife. Please accept the invitation to drive around Cottage Grove to see the extensive housing projects and then drive down to this area and examine the location first-hand.

It is the entire property that should be protected and preserved as a scenic park and wildlife refuge, and not just a sliver of it. This property should be the entrance to a new south-western Washington County preservation site, extending over and into the current Lower and Upper Grey Cloud Island areas, where aggregate mining is currently removing the gravel and the land.

Where the former surface of these islands has been mined and hauled away, these sections of the Lower and Upper Islands are now mere shells of their former selves. Drive by along Grey Cloud Trail South and see. Look down and into the mining site, from the road. These mined island areas look like volcanoes which have erupted. Mined down to perhaps a depth of 100 feet or more, the aggregate from these islands, has been hauled away, leaving these islands with horrific scars. The landscapes have been re-defined with new open areas and even immense and deep lakes, now filled with water. But someday, the mining will end, when there is no more aggregate available or when these sections of the islands have been completely mined away. Even in such a devastated condition, these lands will still make an exceptional park site.

Just across the Mississippi from the Mississippi Dunes Golf property and the Lower and Upper Grey Cloud Islands, in Dakota County, is a beautiful and profound park area. Washington County Commissioners could examine this site, work with Dakota County officials, and create a unique and extraordinary park system, perhaps even a new State Park. It could be filled with hiking and biking trails, bird-watching venues, a visitor center, fishing ponds (in the man-made holes, excavated and created through the aggregate mining), areas for wildlife, and picnic areas. This massive property could be an entire park system of outstanding natural beauty.

This year one of the books I gifted to loved ones was *Profiles in Courage,* by President John F. Kennedy. For those who have not enjoyed the pleasure of reading and studying this book, each

chapter centers around one hero, facing a dilemma. These chapters focus on a variety of historical eras and events but the true focus is on individual citizens who exhibited bravery, integrity, and courage, in the face of conventional thinking and against all odds.

Often these individual citizens stood alone against power and riches. But collectively, what they all had in common was that they stood, at the perfect moment, on the right side of history. They stood on the right side of right, often casting the single vote that made the determining difference in legislative struggles. Unfortunately, in Cottage Grove, among the powers that be, at this moment in time and in history, not even one such individual exists.

About 1890, the gentleman known as the "Founder of Itasca State Park" and the "Father of the Minnesota State Park System," Jacob V. Brower, visited Grey Cloud Island to meet with an early settler, Joseph LaBathe.

Born in 1825 at Fort Snelling, Joseph LaBathe was one of the last of those earliest pioneers actually born into the vanishing fur trade business, who grew up knowing many of the Dakota chiefs and personalities (and he was a grandson and a great-grandson of Chief Wabasha I and Wabasha II, and a nephew and a cousin of Grey Cloud Woman I and Grey Cloud Woman II). Often, LaBathe could be heard singing the old French-Canadian songs of the voyageurs, as he paddled in his canoe on the Mississippi. And this was the purpose of Brower's visit with LaBathe.

By 1890, life had changed. The massive forests, and the seemingly never-ending lands were disappearing, becoming just memories. The objective of this meeting was for Brower to hear first-hand of LaBathe's experiences, of the changes that had come and of those that might be faced in the future. Brower shared his mission, his dream, to protect that small portion the lands surrounding Lake Itasca, a small parcel of that special scenic paradise, for those who would yet be born.

After a trip north in 1888, where Jacob Brower had worked as a surveyor to resolve a dispute over the source of the Mississippi, it became Brower's mission to stop the extensive logging, which he watched, as trees were felled and the land cleared, on land owned by the Friedrich Weyerhaeuser Companies (Mr. Weyerhaeuser at that time was the 8th-richest person in America, with a net worth of $85 Billion, in 2016 US Dollars). It became Brower's dream and then his mission to promote the protection of the lands surrounding Lake Itasca, so that the trees would be preserved for future generations and posterity. It was an extraordinary dream and mission.

So, in 1890 Jacob Brower and Joseph LaBathe met, at LaBathe's home. Over food, drink, and the enjoyment of clay pipes filled with tobacco, these two gentlemen talked, under the shade of trees, in view of the Mississippi.

They spoke of times past and what could be done, just here and there, to preserve small portions of what all of Minnesota had looked like just a few generations before. As a remembrance of their visit, Mr. Brower photographed his new friend, Joseph LaBathe. This photograph is the only known image of Joseph LaBathe.

Jacob Brower was determined to save the remaining few pine trees surrounding Lake Itasca, even if it appeared that such an effort was against all odds. But the Minnesota State Legislature brought his bill up to the vote, to establish Itasca State Park, as Minnesota's first State Park. On April 20th, 1891, and passing by just one vote, this park became Minnesota's first State Park Jewel.

Through the years, the wisdom of that action, proved that it was the right and sensible action. The aroma from the Pines, the mighty forests, a home to vast and various species of wildlife and birds, having the opportunity to see Minnesota's State Flower in bloom, and even in clusters, the respite provided to visitors through open areas and green space, has proven that conservation of this wild space is and was the superior choice.

For generations to come, just as it was at Itasca State Park, choosing preservation of and for this land, is the superior and the right choice. No homes have been built yet. The Better Angels of all of our Natures could work together to protect and preserve this little piece of paradise. It is the right action and the best choice for everyone.

No one who has ever visited Itasca State Park, even if only to walk across the Mississippi, at the Headwaters, could imagine life without this park. And that is how those who passionately care enough to protect and preserve the former Mississippi Dunes Golf course, as a park and scenic place, think about this parcel of open land. This property could be the Twin Cities' Itasca, one that would bring many to this area, to bring joy, happiness, as well as physical and emotional well-being to visitors from Minnesota and beyond.

Those who support the development of this property, newly named, the *Mississippi Landing*, have told those who hope to save and protect the former Mississippi Dunes Golf property that this is privately owned land and that this right should be protected, evidently as an absolute right, and at all costs. It should be remembered that without progressives like Jacob Brower, that there would not be an Itasca State Park or

perhaps many or any other State or municipal parks. This entire scenic site should be saved for everyone, and for the future, because it is precious and because it is a necessity. Housing can be and is being built elsewhere.

And those residents and supporters of the preservation of this precious site are not opposed to housing developments. Just not here. There is not another parcel like this one, on the waterfront, adjacent to the rare Mississippi Dunes Scientific and nature area, and home to deer, wild turkeys, otters, as many as three species of turtles, opossums, owls, swans, Bald Eagles, and coyotes. Housing development does not do this land justice.

When Jacob Brower visited Joseph LaBathe on that lovely sunny and summer day, they could not have imagined that these lands in the extreme south-western corner of Washington County would be in such danger, as this danger is not development but total destruction. When Brower was working to protect and preserve the lands around Lake Itasca, those lands and those trees, and the wildlife and birds that he cared about, were far, far away. That is not the case now.

These are lands are right here. This is it. There is no more and once the housing is built, there will be nothing left to save. Once this land is lost, it will be lost forever.

Of all of the places in Cottage Grove to develop, couldn't this one small piece of paradise be preserved for everyone and all of the living things who call this place home?

Jacob Brower - Joseph LaBathe, as photographed at LaBathe's home on Grey Cloud Island, 1890

The photograph of Jacob Brower - Courtesy of the Minnesota Historical Society and the image of Joseph LaBathe, as photographed by Jacob Brower – Courtesy of Alice Robinson, a great-granddaughter of Joseph LaBathe

Corinne L. Monjeau-Marz is a resident of Cottage Grove, Minnesota, and is an author and historian of 19th century Minnesota History.

Mississippi Dunes Environmental Assessment Worksheet (EAW) Comments
Dated: 12-12-2021

Submitted by:
Bonnie Matter
6649 Inskip Avenue South
Cottage Grove, MN 55016

Today the Mississippi Dunes' parcels serve as a buffer and filter for the Mississippi River from the encroaching city of Cottage Grove residential and industrial developments. A master plan has been approved that will change that. With environmental changes rapidly occurring with extreme weather and climate change, this will have a serious impact on not only the Mississippi River and the Mississippi Dunes area but on the entire south side area. The following comments are respectfully submitted and hopefully addressed.

Highlights, specific call outs and reference documents before getting into the comments on the EAW starting on Page 3:

Railroad - 37 trains per day - Provide times of day; length of trains; tonnage moved per train; potential for increased rail traffic with the 3.5 million square foot NorthPoint Logistics Center BNSF owns railroad tracks that run along the proposed residential development; CP has track usage rights to these same railroad tracks. With the Canadian Pacific-Kansas City Southern (CP-KCS) merger opening up all of North America from Canada to Mexico for the first time, is there the potential for increased railroad traffic in this area?

https://futureforfreight.com/

If there is the potential for increased railroad traffic in this area:
Noise - impact on homeowners quality of life
Vibration - impact on building structures, foundations.
Distance between tracks and residential buildings / homes
Railroad track fires
What's in those cars? Is it flammable, hazardous?
Mitigation plans

What standards are followed for railroads in residential developments:

See International Railroad Standards - are there standards?
Guidelines for New Development in Proximity to Railway Operations
https://international-railway-safety-council.com/wp-content/uploads/2017/09/lulham-guidelines-for-new-development-in-proximity-railway-operations.pdf

Cottage Grove Industrial site is a great plot of land conveniently located between both CP and BNSF railroad tracks and ideally suited for industrial and commercial businesses. It is a gem for those in warehouses. Not many places available.

Reference Materials: MAPS
Put the development in **context** with surroundings; e.g., addition of 3.5 million square foot Logistics Center and railroad tracks

Reference: CP-KCSmergereis.com map
https://cp-kcsmergereis.com/ - Use the interactive map

Use 55071 as the zip code and zoom in. Use the "topographic map base layer".
Can also change base layers to see many different aspects of the site.
https://www.arcgis.com/apps/dashboards/665e5f3b1412406ea49454f573aefd35

Note the BNSF and the CP rail lines on either side of the 3.5 million square foot NorthPoint Logistics Center. Note that Mississippi Dunes is clearly marked.

This area is going to require rail; doesn't matter how many roads are built for the 3.5 million square foot logistics center. It won't be enough for all the semis and truck-trailers and it will hose up other roads and freeways like 61, 494/694. These highways are already congested and do not meet the needs of the existing traffic levels. Rail will be required. No problem with rail. Even more reason why the Mississippi Dunes should **not** be developed. It should be left as is … as a buffer and a filter.

• **Water Quality:** The City requires that new development projects include BMPs that at a minimum achieve post-development reductions in TP and TSS by 50% and 80%, respectively. Watershed rules call for a TP loading rate of 0.22 lbs./acre/year or existing loading rates, whichever is less, since the project site drains to the Mississippi River. If onsite BMPs, such as infiltration, are not feasible or sufficient to meet the water quality total phosphorus loading rates, **the purchase of off-site mitigation credits is an option.**

Comment: In this development, **mitigation should be an absolute requirement!** Purchase of offsite mitigation credit is **NOT** an option.

Traffic Study
It appears that the traffic study company was not aware of the NorthPoint Logistics Center. Based on past history, the NorthPoint Development group should be able to easily ballpark some numbers for semis, truck-trailers, delivery vans, cars, employees, et al. The NorthPoint Logistics Center will add substantially to the traffic in the area.

Traffic flow: Drive south to drive north? Why would semi drivers do that? What is to prevent semis from taking Hadley to Grey Cloud Island Trail (75) and to St. Paul Park and taking 70th Street to Highway 61 heading North. That would be the logical and most efficient route. Why would a semi driver drive 5 miles south out of the way to take the County Road 19 overpass to get on 61 and then head 5 miles to get to 494/694? And need to cross a railroad track risking a delay in wait time for a train?

Mississippi Dunes should be left natural to serve as a natural buffer and filter.
This development is a mistake.
Proposed development is too dense
Between the Mississippi Dunes residential development, other recent residential developments, and the addition of the 3.5 million square foot NorthPoint Logistics Center, impervious surfaces have been increased that will create “heat islands” in this area.

What are Heat Islands?

Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun’s heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become “islands” of higher temperatures relative to outlying areas. These pockets of heat are referred to as “heat islands.” Heat islands can form under a variety of conditions, including during the day or night, in small or large cities, in suburban areas, in northern or southern climates, and in any season.

A review of research studies and data found that in the United States, the heat island effect results in daytime temperatures in urban areas about 1–7°F higher than temperatures in outlying areas and nighttime temperatures about 2–5°F higher. Humid regions (primarily in the eastern United States) and cities with larger and denser populations experience the greatest temperature differences. Research predicts that the heat island effect will strengthen in the future as the structure, spatial extent, and population density of urban areas change and grow.[1]

Please take the opportunity to learn about “heat islands” and read the entire article at:

https://www.epa.gov/heatislands/learn-about-heat-islands

EAW Comments START here:

Item 9. Land Use

Page 8, Paragraph 1: **Question**: Where is this shown on a map in this document. Will 103rd run through from Ideal to Hadley?
“As shown on Figure 5 Concept Sketch Plan Grey Cloud Trail South will be realigned on the north edge of the Project Area crossing the northwest corner. The realignment is intended to create a safer access into the Project site and to will eventually upgrade the 103rd Street S corridor to a County Road. Washington County and the City have identified the need to improve east-west connections through the south quarter of the City to ensure road infrastructure is available to support the projected growth and development of this area of the community.”

Comment:
It appears that there is only one way in and out of this residential development and there is the “potential” for one more - both on the north side of the development - to serve the needs of 499 residences. This does not seem like a very good plan. In an emergency, what is the evacuation plan?

Page 14, Paragraph 2 excerpt:
“The Master Plan has been developed with extensive feedback from the public, the MnDNR and other key stakeholders.”
Comment: The Master Plan has been developed with extensive ***negative*** feedback from the public. Reference Planning Commission Meetings, City Council Meetings public forums, public comment sessions, public workshops, multiple newspaper articles, concerned citizen meetings, change.org, et al. The resident attendance at city meetings against the planned development.

Page 14. Table 7: Dunes Project Parcel Zoning AND Figure 5. Concept Sketch Plan AND Figure 7. Zoning Map with MRCCA & FEMA Floodplain
Comment: Parcels 3, 5, 2 and 4 - What is the distance (and what is the required distance) between the railroad tracks and the residences. Are there building standards for residences and railroad tracks? Currently 37 trains per day go through this area! Is there the potential for increased rail traffic in the future? What is the potential for fires from rail sparks in hot, dry summers.

Page 14. Table 7: Dunes Project Parcel Zoning
Comment: Parcel 1: Break Parcel 1 into two distinct parcels; Parcel 1A: River Buffer Park and Parcel 1B: 60’ lots, 50’ lots. State the dimensions.

Figure 7. Zoning Map with MRCCA & FEMA Floodplain
Question: Assumption: "2 (Exception) refers to SNA property. Please confirm that assumption is correct. If it's something else, please advise what it is.

9.a.i.
Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.
Comment: Add: This development is near railroad tracks and a 3.5 million square foot NorthPoint Logistics Center which will have a major impact on traffic both vehicular and rail and possibly, increased rail traffic.

10. Geology, soils and topography/land forms
Comment: Found the timing of this footnote interesting - who knew?:
3 The Preliminary Geotechnical Evaluation Report was prepared by Braun Intertec on April 8, 2021.

10.a. "The Project Area's proximity to the Mississippi River results in varied geological conditions as the grades increase upslope from the river."
Comment: Yes, agreed and it slopes down to the river and takes runoff down with it.

10a. "There are no know active karst are as on site and Figure 14 identifies known locations of active karst near the Project Area. To prevent impacts to possible karst features, the location of stormwater storage or treatment areas should be located in areas with adequate separation to the limestone bedrock. Where this is not possible, mitigation should be implemented including pond liners or other methods that create a barrier between standing water and the limestone formations."

Question: Does this mean the karst areas could become "active" if enough water entered the limestone bedrock? And what kind of pond liners and barriers will be used and how long do they last and what type of impact will they have on that environment? And who is responsible for maintaining the replacement schedule?

10b. "The existing wetland complex as well as a significant portion of the stormwater ponding are located within the Chaska silt loam area to minimize potential karst impacts in other areas of the site. All other soils on site are generally classified as nonhydric."
Question: Sounds like there might be karst impacts in the area. Yes? Or No? (329 - southeast by railroad tracks.)

Hydric soil definition = wetland -
Question: Where is "329 Chaska silt loam 8.0 acres" on the Figure 5. Concept Sketch Plan

Comment: Concern in this section is with increased rainfall and runoff and the ability for the city services to handle over time and/or ability to handle extreme weather events. Mississippi Dunes should remain undeveloped to help mitigate future extreme weather events. Impervious surfaces will increase substantially with this development, the 3.5 million square foot NorthPoint logistics center, the roads as well as the additional residential and commercial/industrial traffic that will be generated by both and they all flow down the slope to the river. .

11a. "The Project Area is connected to the Grey Cloud Channel (part of the riverway) to the northwest of the Project Area by the wetland complex that runs through the northern portion of the Project Area. The wetland complex receives water from the Grey Cloud Chanel as well as runoff from the existing golf course. The Project Proposer prepared a Wetland Delineation Report4 and the South Washington Watershed District issued a Notice of Decision that confirmed approximately 8.2 acres of wetlands ion the Project site. "
(Note: Reference Table 8: NRCS Soil Classifications; Dunes Project Parcels; Figure 3. Project Parcels)
Questions: Is the referenced 8.2 acres of wetlands Parcels 3 and 5? Is that the High Density Senior Housing Building? Does that make sense? Doesn't make sense to put concrete slab on a wet area that is subject to freezing in cold climate and, therefore, causing the foundation to crack.

"As described in subsection b.ii. of this item, the Project will be required to prepare a SWPPP. The SWPPP must include all additional stormwater Best Management Practices (BMPs) for discharges to impaired waters since the runoff from the Project Area ultimately drains to the Mississippi River which includes segments on the 303d impaired list. To ensure protection of the receiving water and to meet the City's ordinance requirements, the stormwater management plan will be developed to meet standards for rate control, water quantity, and water quality.
Question: How will the city ensure that runoff (heavy rains, melting snow) from both this development and the 3.5 million square foot NorthPoint Logistics Center et al can be contained during extreme weather conditions and prevent damage to the Mississippi River? This development removes the natural river buffer and filter. Will look forward to seeing a very robust SWPPP and ***not just a "meets minimum requirements".***

11.a.ii - The Geotechnical Evaluation Report included 23 test borings in which eight encountered groundwater between 2 feet near the existing wetland complex, and 19.5-feet below ground at the center of the Project Area. Depending on final engineering and grading plans, in areas where the existing geography and relatively shallow depth to groundwater impacts the buildability of a lot, the homes will be constructed with either slab-on-grade or shallow basements where possible.
Question: How will those foundations hold up with vibration from the 37 trains passing through daily and the Minnesota freezing and thawing.

11.b.i.1. - The Project Area will require a Comprehensive Amendment to amend the Metropolitan Urban Service Area (MUSA) to allow for the extension of the system into the Project area. Since the Project Area was planned for contiguous expansion post-2040, the City did not include the projected flows within the 2040 Comprehensive Plan. While the proposed timing of development has accelerated, the City planned for the Project Area and adjacent area to be served within the MUSA.

Question: Again, this requires context. The city "plan" has changed substantially with the addition of this development and the 3.5 million square foot NorthPoint Logistics Center. This should be a robust plan to ensure that future needs can be handled with allowances for extreme weather conditions.

11.b.ii - Stormwater -

Post Construction Conditions The redevelopment of the golf course for single-family residential, senior living and open space uses will be required to meet all stormwater management rules and regulations of the South Washington Watershed District (SWWD) and the City of Cottage Grove. A summary of the City's ordinance requirements for rate control, water quality treatment and volume control are provided:

Rate Control: Peak flow rates after development shall not exceed pre-development peak flow rates for the critical 2-year, 10-year, and 100-year recurrence interval precipitation events. The Project site is located within the Southwest Subwatershed (SW-A17, SW-A18, SW-A19 and SW-A20). Three existing ponds are installed within the area identified as SWP17, SW-P18, and SW-P19. The City Surface Water Management Plan requires rate restrictions for sub watersheds SW-A17, SW-A18, SW-A19 so that proposed conditions peak outflow rates not to exceed 0.4 cfs/acre and 33 cfs combined.

• **Water Quality:** The City requires that new development projects include BMPs that at a minimum achieve post-development reductions in TP and TSS by 50% and 80%, respectively. Watershed rules call for a TP loading rate of 0.22 lbs./acre/year or existing loading rates, whichever is less, since the project site drains to the Mississippi River. If onsite BMPs, such as infiltration, are not feasible or sufficient to meet the water quality total phosphorus loading rates, **the purchase of off-site mitigation credits is an option.**

Comment: In this development, **mitigation should be an absolute requirement!** Purchase of offsite mitigation credit is **NOT** an option. Figure out how to fix it or don't do it.

• **Volume Control:** The City requires a uniform volume control treatment equal to 1: of runoff from the net increase in impervious areas. This provision is intended to maintain the annual average existing conditions infiltration capacity of the site. The Project site lies outside of the 10-year Composite Groundwater Capture Zone, so infiltration is allowed by the City unless prohibited by other criteria of the MPCA Stormwater Manual or the Minnesota Department of Health (where precluded by bedrock, depth to groundwater, or other criteria). Where infiltration to fully meet the volume control measure is not desirable or is impossible, an Alternative Sequencing procedure will be applied to achieve compliance. The Project Proposer will use to the maximum extent practical filtration and biofiltration practices, using a clay liner and an underdrain sized to meet the volume control requirement for the site, or use wet sediment basins sized per the standards within the MPCA General Construction Stormwater Permit. If on-site BMP's are not feasible or sufficient to meet the volume control requirements, the purchase of off-site mitigation credits is an option.

Comment: In this development, **mitigation should be an absolute requirement!** Purchase of offsite mitigation credits is **NOT** an option. Figure out how to fix it or don't do it.

At a minimum, the developed condition of the Project is required to manage and control rates of stormwater runoff, provide water quality treatment and stormwater volume storage within the Project Area consistent with the ordinance rules established above and the SWWD rules. The stormwater generated onsite due to increased impervious surfaces associated with single-family detached homes, detached townhomes and senior living building, parking, and roadways will be managed through the stormwater infiltration basins constructed as part of the development (see Figure 5 for location). The stormwater system will be designed to manage at least the minimum standards as required through the City's Ordinance and the SWWD permitting process.

Comment: **It's time to stop referring to "minimum standards"**. Development is occurring near the Mississippi River. Robust measures should be implemented to ensure that the River is not impacted in a negative way by this development OR the 3.5 million square foot NorthPoint Logistics Center and all it will bring.

Question: Are the referenced "stormwater infiltration basins" referenced on Figure 5 the "Delineated Wetlands" called out on the map in the High Density Residential Senior Housing area? If not, advise location of stormwater infiltration basins.

A SWPPP must be prepared as part of the NPDES Construction Permit required for the Project. The SWPPP will include all additional stormwater Best Management Practices (BMPs) as required above. To ensure protection of the receiving water and to meet the City's ordinance requirements, the stormwater management plan will be developed to meet standards for rate control, quantity and quality as described. During the construction, BMPs must be utilized and will include, but are not limited to: bio-rolls as sediment control along swales, silt fence as down gradient perimeter control, rock entrance and berm to prevent off-site vehicle sediment tracking, inlet protection devices to prevent sediment from entering the storm sewer system, wood-fiber blanket to prevent erosion along slopes, proper restoration in accordance with MPCA regulations, and a seed mix as directed by the City. Additionally, since the Project is located within a karst area the Project Proposer should use and reference the MPCA's General Stormwater Management Guidelines for Karst Areas.6 A complete list of BMPs will be described in the SWPPP.

Question: It is now stated that "the Project is located within a karst area". Confirmed? This is really not good. Have these people ever experienced a sink hole??? Look forward to a very robust SWPPP Plan. And mitigation plan should something happen where something got "overlooked". Who is responsible? The homeowner? Not insurable.

11.b.iii Water appropriation

The Project will be served by the City's municipal water supply. The City recently determined through its Water Conservation Plan7 that water demand based on total per capita water use is estimated at approximately 116 gallons per capita per day. Table 11 provides the estimated water supply use based on the unit mix planned for the development.

Question: The city's plan and needs have changed dramatically with this development, the NorthPoint Logistics Center et al. Are the water resources available to handle existing and future needs?

11.b.iv.a. Surface waters

The road alignments shown on the Concept Plan are designed to meet safety and access space requirements on 103rd Street S and Grey Cloud Trail. Any disturbed wetland or buffer areas will require a mitigation plan that must be approved by the South Washington Watershed District and any other entity with jurisdiction over the wetland mitigation and replacement plan.
Question: What / where is the plan?

11.b.iv.b. Surface waters

The transition of the Project Area to a residential neighborhood is anticipated to improve how runoff and stormwater is managed on the Project Area. The Project Area is adjacent to the Mississippi River (Grey Cloud Slough) and as shown on the Concept Sketch Plan more than 30 acres will be protected as river buffer and park area. There are no planned changes to the river frontage that will adversely impact this surface water. No grading work or other site alterations are proposed to impact adjacent, nearby or existing surface waters except as noted in (a) above.

Comment: Many impervious surfaces are being added - houses, buildings, pavement, roofs, sidewalks, concrete driveways, et al - this will not improve how runoff and stormwater are managed in the Project Area.

15. Visual

There are existing residential neighborhoods near the Project Area that may be impacted by light pollution and construction. Site construction is anticipated to occur during daylight hours, and therefore there is no anticipated glare or intense light that will be generated during the site construction process. Post construction, the Project Area will be developed with uses compatible to surrounding suburban development. All proposed lighting shall be required to follow City regulations for light fixture intensity and design.

Comment: Determination as to 24/7/365 bright lights generated from the 3.5 million square foot NorthPoint Logistics Center should be considered and mitigated for residents. Quality of life issue.

16. Air

16.a. Stationary Source Emissions

There are no industrial or light industrial users or generators of hazardous air pollutants proposed as part of this Project.

Comment: There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying semis, truck-trailers, delivery vans and cars that will be affecting air quality in the area. There are also 37 trains that run on these tracks daily that will affect air quality.

16.b. Vehicle Emissions

The Project will develop a mixed-density residential neighborhood that will generate an increase in carbon monoxide levels due to an increase in passenger vehicle trips to the area beyond the existing golf course use. The Project does not require an indirect source permit. No baseline air quality monitoring or modeling is proposed and no measures to mitigate for the increase in vehicle related emissions are being considered.

Comment: There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying semis, truck-trailers, delivery vans and cars that will result in increased vehicle emissions in the area. There are also 37 trains that run on these tracks daily that will have emissions.

Comment: Railroads are also notorious for starting fires in the summer. Might want to add that to a mitigation plan.

16.c. Dust and Odors - Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

Comment: There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying semis, truck-trailers, delivery vans and cars that will be adding dust and odors in the area. There are also 37 trains that run on these tracks daily that will produce dust and odors. Odors from South St. Paul are not uncommon and complaints are heard from residents in Woodbury, Maplewood and Cottage Grove.

17. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Comment: Those who live by rivers know that sound carries - especially in the winter. It's interesting that seniors would be put in buildings next to the railroad tracks. There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying semis, truck-trailers, delivery vans and cars that will result in increased noise in the area. There are also 37 trains that run on these tracks daily that will result in noise. If additional trains or railroad spurs into the logistics center are added, there will be increased noise as the cars are humped together. Quality of life would be negatively impacted. Maybe downright miserable.

Question: How will this noise be mitigated? List the train schedule times. Provide potential for additional trains or train spurs in the future. How many are anticipated? The logistics center developer will know based on their history. Do the trains only run between certain times? Do the semis, truck-trailers, delivery vans, autos for the logistics center only operate between 7 AM and 7 PM? How will noise levels be mitigated for the residents living in the development?

18. Transportation - Streets listed in study include:
1. 103rd Street S & Grey Cloud Trail
2. Hadley Avenue S & 100th Street S
3. 100th Street S & Jamaica Avenue S
4. Hadley Avenue S & 95th Street S
5. Jamaica Avenue S & 95th Street S
6. Grey Cloud Island Drive and Grey Cloud Island Trail 3-way intersection
7. Grey Cloud Island Drive and Grey Cloud Island Trail intersection on the Island

S2 Traffic Solutions, LLC (SSTS) completed a Traffic Impact Study PROJECT NO. 2021_012 dated November 9, 2021, to estimate the trips generated by the Project and evaluate the potential need for transportation or roadway improvements. The complete Traffic Study is included in Appendix C.
Comment: Found the street text directional comments interesting. For whatever City planning reasons, many of the streets run north and south and then change via a curve and run east and west. Can be confusing when trying to read directional text.

Comments: S2 Traffic Solutions, LLC must have been unaware of the 3.5 million square foot NorthPoint Logistics Center and it's accompanying semi, truck-trailer, delivery van and car traffic that will dramatically increase the traffic in this area and on these streets. **The traffic study provided is not relevant. This traffic study should be redone and updated with relevant estimates that can be provided by the developer of the NorthPoint Logistics Center.**

Existing and Proposed Parking Spaces
Comments: It's not enough parking. In the winter, cars are not allowed to park on the street in Cottage Grove. And an expectation for one parking spot for the senior building is ridiculous. Some day people will be able to visit each other again. Throw parties. More parking (or less housing) is required. Where are visitors supposed to park? What do residents with two cars do for parking? And with the water tables, it's certain there will be no underground garage! Will there even be garages for the senior buildings? There is no bus service in this area. Residents will need to have cars to get to the grocery store or the doctor. This is very poorly thought through.

Estimated Traffic Generation

BIG COMMENT:

Again, this traffic study needs to be updated. Hadley, Grey Cloud Trail South, 100th Street, 103rd Street — all of these traffic figures will be dramatically impacted by the NorthPoint Logistics Center semi, truck-trailer, delivery van and car traffic. This will also affect the residential development. It's also unrealistic to expect that all of these users (including the semis) will drive 5 miles out of the way south to get to the roundabout on Keats (19) and then exit onto 61 and go 5 miles north to get back to where they started and head towards 494/694. They will be taking Hadley to Grey Cloud Trail through St. Paul Park and over to the 70th Street exit. This whole thing is going to be one major problem. And then add to that, sitting at railroad crossings waiting for the trains to move through. This is an accident waiting to happen.

Availability of Transit and Alternative Transportation

"Since the Project site is not on a fixed-route transit line, the Senior Living Building will be served through Metro Mobility which as on-call service administered by Metropolitan Transit."

Comment: This is an assumption that should not be made. Provide the source for this information.

"SSTS analyzed intersection operations using Synchro/Simtraffic, 11th Edition for the 2026 Build out year and for the 2040 Planning Horizon year. There are no improvement projects planned for the study area roadways and none were assumed for the No-Build or Build conditions."

Comment: SSTS should redo the traffic study to incorporate the changes with the NorthPoint Logistics Center traffic estimates. The study provided is out-of-date and not relevant.

18.c. Identify measures that will be taken to minimize or mitigate project related transportation effects. As mentioned, the traffic analysis considered full build out by 2026 and evaluated conditions in 2026 and 2040. The transportation system serving the area will have sufficient theycapacity to include traffic from the Project as well as other anticipated projects without improvements.

Comment: SSTS should redo the traffic study to incorporate the changes with the NorthPoint Logistics Center traffic estimates. The study provided is out-of-date and not relevant. How will the traffic be mitigated for the residents.

19. Cumulative potential effect

Comment:

A.b.c. There is a 3.5 million square foot NorthPoint Logistics Center and it's accompanying daily semis, truck-trailers, delivery vans and cars that will impact this area and its residents. There are 37 trains that run on these tracks daily. The tracks are right next to the development. No indication of how this will be mitigated or if there is the potential for increased rail traffic. There are numerous issues identified throughout this feedback/comment to the EAW. Is anyone listening? Looking forward to responses.

20. Other potential environmental effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

The Project will increase greenhouse gas emissions as a result of the development. The increase is anticipated to be minimal and will not impact emissions on a regional scale. There are no other known potential environmental impacts anticipated as a result of the Project.

Comment: Potential fires in the summer around the railroad tracks from train sparks.

Comment: At the end of the day, you're messing with Mother Nature. Wonder who wins?

Question: How / when are these comments submitted to the EQB?

Please do not hesitate to contact me with additional questions or concerns or clarification. I will be happy to assist.

Thank you.

Bonnie Matter

Hello Emily -

Please add the following documents and accompanying referenced attachments to the Mississippi Dunes EAW comments for review by the Cottage Grove City Council Members. Note: Hopefully, the Council Members will re-read the entire study as well as the appendices. Grateful to know that so much of the work was already done. Thank you.

Washington County Southwest Arterial Study, November 2020, Appendices

Appendix D: Concept Alternatives

Appendix E: Environmental Screening Report

Appendix F: Summary of Environmental Screening Report

Appendix G: Drainage Report

Source Path:

https://www.co.washington.mn.us/DocumentCenter/View/49518/Southwest-Arterial-Planning-Study-Report-with-Appendices

Thank you for all you do. It's appreciated.

Bonnie Matter

P.S. I hope that you had a Merry Christmas. I hope that you have a Happy New Year and that you and your family will stay safe, strong and well. And that we all get to the other side of this pandemic in 2022.

Attention: Emily Schmitz , City of Cottage Grove
I am including my Public Comments on the Mississippi Dunes Environmental Assessment Worksheet.(EAW) Typos have been corrected.
Thank you,
Sincerely,
Sharon O'Boyle

---------- Forwarded message ---------
From: **Sharon O Boyle** <sharonoboyle27@gmail.com>
Date: Thu, Jan 6, 2022, 4:50 PM
Subject: Re: Public comments on the Mississippi Dunes Environmental Assessment Worksheet(EAW)
To: Sharon O Boyle <sharonoboyle27@gmail.com>

On Thu, Jan 6, 2022, 3:00 PM Sharon O Boyle <sharonoboyle27@gmail.com> wrote:

> Please include my previous testimony given during all Meetings I have attended regarding Mississippi Dunes, formerly the Mississippi Dunes Golf Course as well as the comments I am making regarding the EAW.
> I will also be forwarding News Articles regarding other projects the Housing Developer has engaged in and ask that they also be included in my EAW Public comments.
> I have read the complete EAW regarding Mississippi Dunes.
> I am AGAINST ANY Housing Development on the Mississippi Dunes acreage.
> This acreage is adjacent to the Grey Cloud Dunes SNA(Scientific Natural Area.)
> on one side and the Grey Cloud Island Regional Park on the other side.
> This acreage according to the EAW is more suited to continuing to be preserved as Open Space as a Park. Endangered Species have been identified on the Mississippi Dunes acreage. It is located within the Mississippi River Critical Corridor Area and is also in a Flood Plain.
> All Sand would need to be removed from the acreage as well as all of the existing trees which would be devastating to the Environment and the Wildlife habitat.
> Every " mitigation" proposed by the Housing Developer and the EAW would be disastrous regarding the Environment and Climate Change. Every "promise" made by the Housing Developer per any requirements by the EAW or other Governing body are: " to the extent possible."
> Any additional traffic from any size of a Housing Development would have a Negative impact on both the current residents of Cottage Grove and the surrounding Communities. The EAW states that there would be an additional 4,000 vehicle road trips per day. Which is based on 2 people/ household, which I believe is underestimated. There is also an underestimation regarding water usage and sewer usage-also based on 2 people/ household.
> There is a Historical house located on the property and a barn. The house has been used as a rental but could be used to promote the Park.
> The EAW brings up the pros and cons. The land usage must remain Open Space to become a Park that would benefit the Community, the current residents, surrounding Communities and future generations of children.
> Climate Change is an indisputable FACT. We MUST preserve what Open Spaces we have left.
> The damage to the Environment, Endangered Species, Climate Change outweighs any potential lust for a Housing Development: The Housing Developer can put a Housing Development on a different piece of land that would not have such a negative Impact!
> Please have an EIS also done.
> One other issue that concerns me: there is an unsolved Arson case of the Mississippi Dunes Golf Course ClubHouse. NO DECISION should be made about moving forward until that is solved and the perpetrator found. Someone stood to benefit from the Arson of the Clubhouse.
> Sincerely,
> Sharon M.O'Boyle
> sharonoboyle27@gmail.com
> 9300 Grey Cloud Tr. S. P.O. box 251
> St. Paul Park, MN. 55071
> (Grey Cloud Island Township)

To Whom It May Concern,

After reviewing the EAW entitled, “Former Mississippi Dunes Golf Course” I provide the following comments:

Comments related to Fish & Wildlife

The proposed project area was previously used as a golf course, it has been closed for several years and allowed to “rewild” in a way that is known to attract wildlife, including state and federally endangered species.

1) The EAW fails to identify and discuss the state endangered Blanchard’s Cricket Frog (*Acris blanchardi*). Observations of this state endangered frog occur within the river corridor, with observations occurring both upriver and downriver of the proposed project. Observations occur within 1.75 miles of the proposed project area and the proposed project is within the documented dispersal distances of the species. Suitable habitat for this species exists between documented populations and the proposed project, and within the proposed project limits – the species readily utilizes a variety of habitats, including riverbank, backwater, pond, lake, and stormwater pond habitats in the Twin Cities Metro. These endangered frogs were recently (2021) documented using artificial ponds (i.e., highway stormwater ponds) as far as ~ 1,700’ from the main Mississippi River channel in the Twin Cities (www.HerpMapper.org, accessed 2022).

2) The EAW fails to identify and discuss the state threatened Blanding’s Turtle (*Emydoidea blandingii*). This species has been observed overwintering within 2.5 miles of the project area in Mississippi River backwater habitat (www.HerpMapper.org, accessed 2022). Much like the above cricket frog, the proposed project is within the documented dispersal distances for this species. Suitable habitat for this globally endangered turtle (https://www.iucnredlist.org/species/7709/155088836) exists between documented populations and the proposed project, and within the proposed project limits – the species readily utilizes a variety of habitats, including rivers, streams, and natural and artificial ponds in the Twin Cities Metro (pers. obs.).

3) The EAW fails to do its due diligence in respect to the federally endangered rusty-patched bumble bee (RPBB; *Bombus affinis*). U.S. Fish & Wildlife Service (FWS) has numerous resources available online, and recently updated its guidelines for the RPBB in December 2021. Based on analyses and guidance provided by FWS, ground and vegetation disturbing activities that 1) exceed two acres of suitable foraging habitat, 2) exceed 0.25 acres of suitable nesting habitat, and/or 3) exceed 0.25 acres of suitable overwintering habitat are reasonably foreseeable to cause take as defined under the federal Endangered Species Act (50 CFR Part 17). Note, suitable foraging, nesting, and overwintering habitats are present within the proposed project area (pers. obs.).

   USFWS RPBB Guidelines, see Appendix A.
   https://www.fws.gov/midwest/endangered/insects/rpbb/pdf/RPBB%20Section%207%20Guidance%20-%20Ver%203.1%20-%20Dec%202021%20Final%20508.pdf

   The federal Endangered Species Act prohibits the *killing*, *harming*, *harassment*, *and similar,* regardless of intent, of endangered wildlife species regardless of whether the

action is federal or non-federal. The federal Endangered Species Act also prohibits "significant habitat destruction or modification." FWS has identified the acreage thresholds listed above to help project proposers determine whether their proposed action rises to the level of "take" as defined by regulation; if exceeding these thresholds consultation with FWS is *required* as take is reasonably foreseeable to occur.

Fortunately, FWS has created several tools to aid project proponents in their legal obligations related to the Endangered Species Act. Before the EAW is considered complete, the project proposers should be required to meet their Endangered Species Act compliance obligations via a Habitat Conservation Plan or similar regulatory mechanism. See:
https://www.fws.gov/midwest/endangered/permits/hcp/hcp_wofactsheet.html

4) The EAW fails to discuss tree clearing timing and tree clearing impacts to protected bats, including the federally protected northern long-eared bat (*Myotis septentrionalis*) (hereafter NLEB), protected birds (i.e., Migratory Bird Treaty Act), and bald eagles (i.e., Bald and Golden Eagle Protection Act).

5) The EAW references "Attachment B" on page 30 and states that, "Mitigation suggested will be followed *to the extent possible*…" (emphasis added)

   Following applicable federal law is not optional. Assuming the project relies on the Final 4(d) Rule for the NLEB to achieve compliance (though this is not clear, there is no statement in the EAW about how the project will follow federal law related to this species), the EAW should discuss in detail, what steps will be taken to avoid and minimize impacts to NLEB. The EAW should also discuss contingency plans in anticipation of the Final 4(d) Rule being revoked or amended in the current Federal Fiscal Year (FFY 22) as is anticipated, see:
   https://www.environmentallawandpolicy.com/2020/01/federal-district-court-remands-northern-long-eared-bat-listing-decision/ and https://www.fws.gov/endangered/what-we-do/listing-workplan.html

6) The EAW fails to discuss / address reasonably foreseeable cumulative effects associated with increases in impervious surfaces, increases in salt and other deicing products, increases in roadkill (including turtles), and other similar impacts that may affect terrestrial and/or aquatic organisms (e.g., endangered mussels).

7) The EAW fails to address foreseeable indirect effects of the proposed action on state and federal threatened and endangered mussels. While state law may not regulate indirect effects to endangered species, the federal Endangered Species Act does – see comment above.

8) The project proposer fails to address reasonably foreseeable maintenance needs associated with a residential development of this type. Specifically, the project proposer fails to identify and discuss regulatory challenges associated with future vegetation and storm water infrastructure management and maintenance. Green spaces, including wet and dry stormwater ponds, constructed to meet stormwater regulations that occur near riparian corridors and other areas with known populations of rare species – including a federally endangered bumble bee – are expected to attract rare and other protected species and limit future maintenance and use.

Given the foreseeability of this inherent conflict (stormwater regs v. endangered species regs), the EAW should address future property management and maintenance requirements to ensure their activities avoid, minimize, and mitigate (where required) impacts up front. Absent the proposed project these future impacts are not reasonably certainty to occur – therefore the proposed project scope fails the "but for" test and must address impacts associated with these foreseeable future activities.

Many local, county, and state agencies are currently facing challenges associated with the presence of lands and stormwater infrastructure that are difficult maintain while also avoiding impacts to endangered species. Greenspaces and stormwater infrastructure can become significantly more expensive to maintain because of conflicting regulations which results in their failure to meet their intended purpose and/or result in unauthorized adverse effects to protected species. The EAW should address this foreseeable impact.

9) The EAW fails to discuss Artificial Light at Night (ALAN) impacts. Note Minneapolis-St. Paul is already ranked among the worse areas for light pollution and birds. See: https://par.nsf.gov/servlets/purl/10092558

10) The EAW fails to mention and discuss proposed impacts to migratory birds in the context of the proposed project occurring within the Mississippi River Twin Cities Important Bird Area. This is especially important given the presence of endangered/threatened birds in the vicinity of the project.

11) Rare snakes, turtles, birds, and small mammals occur in the project area. The proposed project commits to following all erosion control BMPs, but it's not clear in the EAW that the project will require the use of erosion control materials that reduce the risk of wildlife entanglement and/or microplastics. This should be explicitly addressed. See: https://documents.coastal.ca.gov/assets/water-quality/permits/Wildlife-Friendly_Netting_in_Erosion_&_Sediment_Control-Factsheet_r5_Sept_2016.pdf

Misc. Comments:

12) The proposed project is anticipated to require DNR authorization and/or permits. Note that per the "Cooperative Agreement between the Minnesota Department of Natural Resources and U.S. Fish and Wildlife Service," DNR may not issue permits that, "(1) has a substantial lethal potential for an endangered species, or (2) has a substantial potential for inhibiting the procreative ability of an endangered species…" See comment #3 above for more discussion on potential take of an endangered species by the proposed project.

13) The EAW insinuates that the prior property use, as a golf course, somehow precludes the possibility of these rare species from occurring on site and/or somehow creates a net benefit via the conversion of the area to residential development. Yet, the EAW provides no tangible data or support to back up this assertion. EAW fails to adequately acknowledge high quality habitats still present on the site.

14) The EAW fails to discuss the fact that a DNR "MBS Site of Biodiversity Significance" will be destroyed by the proposed project.

15) The EAW fails to address DNR habitat assessment / endangered plant survey requirements provided in the DNR NHIS letter.

16) EAW fails to discuss that Friends of the Mississippi River and DNR have tried to acquire portions of the site to conserve state and globally significant natural resources presence (e.g., remnant prairie, globally imperiled species). Many of these important natural resources will be lost / destroyed by the proposed project. Public ownership of portions of the proposed project area for the purposes of conservation are in the public interest.

17) The EAW fails to adequately address the foreseeable increase in use of adjacent SNA that will result from construction of a large residential development immediately adjacent to the property. In addition, residential developments sharing an unprotected border with a protected natural area is known to increase the invasion of the natural area by non-native plants and animals, lawn maintenance chemicals and poisons and yard management practices. This scenario is realized nearly everywhere in the state where residential developments share a border with protected state lands. DNR SNA program does not have the resources available to manage police private encroachments onto its lands, nor does the SNA Program have resources to mitigate these risks.

Example of an encroachment upon real property in Sand Dunes State Forest following a new housing development. This resulted in the taking of state-listed threatened species and continues to this date.

18) The EAW states that the conversion of the property from a golf course to a residential development will result in fewer pesticides being applied. The EAW provides no evidence to support this assertion, nor does the EAW mention that the golf course has been closed for several years, and presumably few if any pesticides have been utilized

on the property in recent years. The EAW fails to discuss the fact that commercial applications of pesticides are done by licensed applicators, whereas many residential applications are done by the homeowners themselves, and that these homeowners are rarely licensed.

19) The EAW fails to analyze the project's impacts in the context of the project's occurrence within an identified "Critical Area" established under Minnesota Rules, Section 6106.0160 and City ordinance. The EAW mentions the presence of a City Ordinance, but the proposed action, as presented, appears to violate both state law and the local ordinance. This needs to be analyzed / discussed.

20) The EAW fails to discuss the foreseeable need for local variances to deliver the proposed project. It's assumed, absent discussion in the EAW to the contrary, that the project proposer will require numerous variances to deliver the proposed project – including variances related to the Mississippi River Corridor Critical Area.

    A project proposer cannot both *create practical difficulties* and then *allege hardships* that will foreseeably require variances to deliver said proposed project (Minnesota Statutes, Chapter 462.357, Subd. 6(2)).

21) Note the proposed project results in a permanent physical encroachment on lands within a national park (Mississippi National River and Recreation Area) and most probably to a Scientific and Natural Area (SNA), in which case the project also triggers a mandatory EAW under 4410.4300, Subp. 30 and allows DNR to be the RGU.

Based on the comments above, the EAW should be deemed incomplete and/or a finding requiring the development of an Environmental Impact Statement (EIS) should be made on the grounds that the proposed project results in significant environmental impact (e.g., a controversial project and unaddressed adverse impacts to endangered species).

Sincerely,

Christopher E. Smith
Concerned Citizen
Washington Co. Resident (55043)

Dear Ms. Schmitz,

I can only say that I was disappointed by the city's lack of vision for this wonderful river front property. There must be considerable expense involved in extending the potable drinking water supply line and the sanitary sewer system to this somewhat isolated patch of the city. The size of these lots do not seem compatible with the high end homes that will be needed to make this project a success.

I am disturbed that significant natural vegetation will be destroyed during the course of this project. This is not what we need during this period of climate change. It seems egregious to me that the 6.8 acres of wooded forest would be destroyed at this point in time. Trees are a tremendous source of carbon storage and we certainly need all the carbon storage available. I think that the city should push for more than the usual number of trees in the neighborhood. I saw several stands of oaks in the nearby Grey Cloud Dunes Scientific and Natural Area. I appreciate the good words that the developer says about using native plants for landscaping. There should, probably, be a city initiative for all home owners to do that. I am very doubtful that I will see any native vegetation if I drive into this area after construction is concluded. Why doesn't the Environmental Assessment address Climate Change impacts? We know that destroying the rainforests is a bad thing to do. Why do we think that disturbing an existing ecosystem in MN has less effect? There should be provisions for the final project to at least be carbon neutral going forward.

Grant Tiefenbruck

8989 Jasmine Lane S

Cottage Grove, MN 55016

Good Day,

Thank you for receiving my comment for the MS Dunes open comment period for the EAW.

1. A request for an EIS based on potential environmental effects, following the four criteria in MN Admin Rules 4410.1700 - Decision for Need for EIS.
2. Address the municipal stormwater impacts associated with the NPDES permit with a plan to address increased TP and TSS loading being exported from this project and after it's completion. The MNLCS states current grasses, forest, etc. will be replaced with turf grass and impervious surfaces which could increase yield if TP and TSS.
3. Amend: The adjacent waters (Mooers, Grey Cloud Channel and Slough) are hydraulically connected to the Mississippi River Main stem, thus any impact on these waters would directly impact an impaired water body. (Upper St. Anthony Falls to St. Croix River is Impaired). The water within 1 mile of this proposed development should be considered to affect Impaired water.
4. Take into account the protected wellhead area adjacent to this property with further study to assess impact to wells and drinking water of adjacent properties.
5. Define, if possible, the natural area, owned by local government within the EAW, and potentially the EIS.

Thank you,

Cole W. Williams

To whom it may concern,

I can't elaborate better than Mr. Christopher Smith's letter regarding the proposed development at the Mississippi Dunes area but wanted to include a personal note.

I first visited the area SNA about a decade ago and while the golf course wasn't great to look at it sure is better than what will be there after development. The figure 5 sketch plan in the EAW is awful. Is it a done deal there will be a cheap Pulte housing development there? I just find it incredibly sad that the area will permanently ruined and am extremely disappointed that this development was even approved in the first place.

Sincerely,

Brett Whaley

Zimmer Environmental Improvement LLC
St. Paul, MN 55104
zenllc@usfamily.net

January 6, 2022

City of Cottage Grove
Attn: Emily Schmitz
12800 Ravine Parkway South
Cottage Grove, MN 55016
Via email: eschmitz@cottagegrovemn.gov

RE: Environmental Assessment Worksheet for Mississippi Dunes

Dear Ms. Schmitz,

I am an environmental health scientist and the principal of a small environmental consulting firm who has assisted numerous businesses with environmental improvement for the past twelve years.

This past year's heat and drought, wildfires and December tornadoes have brought the climate crisis home to Minnesota. The heat and drought has impacts for humans and wildlife, decimating agriculture and drying up rivers. Tornadoes, in December are unheard of and also wreak substantial havoc for people and wildlife. The fires along the North Shore destroyed habitat for humans and wildlife as well.

In addition to the climate crisis, we are facing an extinction crisis. The very basis for human life depends on the Earth's biodiversity and ecosystem services other species provide. Examples include air purification, carbon sequestration, mitigating the urban heat island, nutrient retention, pollination, healthy soil, water cleansing and regulation. The biodiversity of life not only supports these ecosystem services, but also provides beauty and respite.

And lastly, we are amid a two-year public health pandemic. The roots of the pandemic are likely due to human incursion into wildlife areas. As we have learned, failing to adequately consider the ecological and environmental impacts of human activities is at our peril.

Please consider these comments to the Mississippi Dunes environmental assessment worksheet (EAW).

The EAW is incomplete

Failure to consider, quantify and evaluate cumulative effects of additional greenhouse gas emissions

The Mississippi Dunes EAW fails to consider the greenhouse gas emissions or carbon footprint for the addition of 499 houses and the near-complete destruction of an almost natural area. The University of Minnesota's Department of Soil, Water and Climate wrote mean household carbon emissions are approximately 8.7 tons per year per residence.[1] Using

[1] Fissore, C. et al, Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis-Saint Paul, Minnesota, urban region, Ecological Applications, 21(3): 619–639, (2011).

this benchmark, the 499 homes proposed by Pulte will add another 4342 tons of carbon emissions annually. Whereas a recently completed study from the US Department of Agriculture indicates a locally restored prairie can effectively sequester an average of 1.14 metric tons of carbon per acre per year,[2] indicating protecting and restoring the golf course could benefit the entire community sequestering approximately 228 tons of greenhouse gases per year.

In addition to the added greenhouse gas emissions associated with the housing, the EAW estimates an additional daily 3953 vehicle trips. MN DOT estimates the average per capita vehicle miles traveled is 12,000 annually.[3] MPCA estimates the average compact/mid-size car emits 9200 pounds of carbon emissions every 12,000 miles.[4] The vehicle trips estimated by the EAW then could result in a further 36,368,000 pounds of carbon into the region. Transportation is the largest source of greenhouse gas emissions in Minnesota, yet the extra almost forty million pounds of carbon emissions are not evaluated by the EAW.

Increase in urban heat island

The research conducted by the Natural Capital project at the University of Minnesota assessed ecosystem services provided by various land uses. They found that "golf courses have larger positive marginal values when evaluated against potential conversion to suburban residential (0.09C increase), urban residential (0.13C increase)."[5] In other words, the proposed project could increase the temperature of the urban heat island by approximately 0.11 degrees Celsius. This is a significant figure when one considers preventing a full-blown climate catastrophe, we are seeking to avoid a 1.5C degree increase in mean global temperature.

Failure to consider nitrogen and phosphorus run off

Golf courses export nitrogen at a mean rate of 5.0 kg/ha/yr. If a golf course is converted to suburban and urban residential developments, nitrogen export is expected to increase by a median of 0.8 and 1.9 kg/ha/yr, respectively.[6] Golf courses [also] export phosphorus at a mean rate of 0.18 kg/ha/yr. If converted to suburban or urban residential developments, which would increase phosphorus export by a median of 0.05 and 0.07 kg/ha/yr, respectively.[7]

No formal analysis of the increased nitrogen and phosphorus loading to the Mississippi River, a National Scenic River with some impairments has been included in the EAW.

No habitat or species surveys have been conducted

The EAW identifies at least twelve rare or significant species within one mile of the project area. This information was gleaned from the MN DNR's Natural Heritage Information System. The federally endangered Rusty-patch Bumble Bee (RPBB) has been verified at the adjacent Gray Cloud Dunes Scientific and Natural Area. The RPBB does not migrate, but rather the Queens hibernate in shallow burrows. The EAW states, "The Project Area is entirely within a high potential zone of the Rusty-patched Bumble Bee." The project proposes to grade at least 164 acres that could contain hibernating Queen RPBB. Despite the presence of a number of rare and endangered species within one mile of the project site, no habitat or species surveys have been conducted with the EAW.

Pulte Homes' EAW is incomplete and lacks information regarding climate change related impacts, stormwater pollution and surveys for rare and endangered species. These matters have the potential for significant environmental impacts. Surveying for the RPBB would not be possible at this time of year, so a 30-day postponement does not apply in this case (MR 4410.1700, subp.2).

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[2] Markland, T., Carbon Balance and Evapotranspiration Rates of a Restored Prairie and a Conventional Corn/Soybean Rotation, University of Minnesota Digital Conservancy, https://hdl.handle.net/11299/206697, (2019).
[3] MN DOT, Vehicle Miles Traveled trend report, 2018.
[4] MPCA, Vehicles and Equipment, https://www.pca.state.mn.us/air/vehicles-and-equipment.
[5] Lonsdorf, E., et al, Assessing urban ecosystem services provided by green infrastructure: Golf courses in the Minneapolis-St. Paul metro area, Landscape Urban Planning, April 2021.
[6] Ibid.
[7] Ibid.

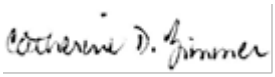
Additionally, upon information and belief, MPCA has issued five water quality violations to Pulte Homes that must be investigated.

For these reasons, we request a positive declaration for an Environmental Impact Statement and the above impacts be included in the scope of the EIS.

Please acknowledge receipt of these comments and provide notification as to when the city council will make a determination on the need for an EIS.

Thank you for your kind attention to these concerns.

Sincerely,



Catherine Zimmer, MS, BSMT

PUBLIC HEARING TESTIMONY & COMMENTS

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

Matter, Bonnie
O'Boyle, Sharon

City of Cottage Grove
Planning Commission
December 20, 2021

A meeting of the Planning Commission was held at Cottage Grove City Hall, 12800 Ravine Parkway South, Cottage Grove, Minnesota, on Monday, December 20, 2021, in the Council Chamber and telecast on Local Government Cable Channel 16.

Call to Order

Chair Frazier called the Planning Commission meeting to order at 7:00 p.m.

Roll Call

Members Present: Ken Brittain, Jessica Fisher, Evan Frazier, Eric Knable, Derek Rasmussen

Members Absent: Jerret Wright

Staff Present: Jennifer Levitt, City Administrator; Christine Costello, Community Development Director; Mike Mrosla, Senior Planner; Emily Schmitz, Senior Planner; Zac Dockter, Parks and Recreation Director; Ryan Burfeind, Public Works Director/City Engineer; Amanda Meyer, Assistant City Engineer; Steve Dennis, Council Member

Approval of Agenda

Brittain made a motion to approve the agenda. Fisher seconded. The motion was approved unanimously (5-to-0 vote).

Open Forum

Frazier opened the open forum and asked if anyone wished to address the Planning Commission on any non-agenda item. No one addressed the Commission. Frazier closed the open forum.

Chair's Explanation of the Public Hearing Process

Frazier explained the purpose of the Planning Commission, which serves in an advisory capacity to the City Council, and that the City Council makes all final decisions. In addition, he explained the process of conducting a public hearing and requested that any person wishing to speak should go to the microphone and state their full name and address for the public record.

Public Hearings and Applications

6.1 Mississippi Dunes EAW - Case EAW2021-077

Pulte Homes has applied for an Environmental Assessment Worksheet (EAW) for development of land guided Transition Area, which is generally located at the former Mississippi Dunes Golf Course site south of 103rd Street and north of the Mississippi River.

Schmitz introduced Jane Kansier, a Senior Planner with Bolton & Menk, who summarized the EAW process, timeline, purpose, and EAW content. Kansier stated the Council will discuss this on January 19. Tonight there is a public hearing; comments will be compiled and responses will be generated and provided to the City Council and included in the Record of Decision. No responses to questions or comments are required this evening, and no action of the Planning Commission is specifically required. Schmitz stated she'd try to answer any questions from the public.

Frazier stated speakers will have three minutes to provide their comments. Comments in writing can be addressed to Senior Planner Emily Schmitz, whose email can be found on the City's webpage, cottagegrovemn.gov; the comment period is open until Thursday, January 6, 2022.

Frazier opened the public hearing.

Bonnie Matter, 6649 Inskip Avenue South, asked questions and made statements:

1. Did the Planning Commission Members read the public comments that were submitted regarding the EAW?
2. There are 37 daily trains that run by the proposed development. Missing from the EAW was information like the distance between the tracks and the residences in the development. Negative impact on the residents' quality of life due to: Noise pollution; Diesel engine smells and air quality; Train vibrations; Structural damage to houses due to foundation and settling issues; Potential grass fires in dry, hot summers from sparks; Train schedules: Morning, afternoon, evening, night, all the time, when do they run; Train loads: How big, how much, what's on them, any hazardous materials. How would increased future rail traffic impact future residents; what are the mitigation plans for these issues?
3. The substantial increase in impervious surfaces from rooftops to roads; what's the mitigation plan?
4. Building a senior apartment building on a slab foundation on wetlands; slabs will freeze and thaw and crack. Vibration from trains will exacerbate the problems; what's the mitigation plan?
5. There's a Section 11B to stormwater about water quality and volume control; it says the developer indicates that if they cannot meet the requirements, the purchase of off-site mitigation credits is an option. In a sensitive critical area, mitigation should be an absolute requirement. There should be no purchase of off-site mitigation credits. Where would a statement like this ever be considered for the type of area under review?
6. Traffic study does not reflect the development's future traffic load with industrial development going into the east.
7. There is only one way in and out of the development. There is a "potential" for one more outlet. What if all those homes had to be evacuated? How do the residents all get out at one time with one outlet; 369 single-family homes, 130 senior units, and a multifamily building?
8. Please request a copy of my EAW comments and review the many issues with the EAW. If you're going to allow the development to move forward, then you must help protect both the Mississippi River and future homeowners in that development. This is only a portion of what she submitted.

Sharon O'Boyle, 9300 Grey Cloud Trail South, Grey Cloud Island Township, stated she read the whole thing, both the EAW and the historical description of the house, which she found really interesting since she lived in the house on the corner of Mississippi Dunes until she was eight years old. Her Grandma O'Boyle owned the land before it was sold to become Mississippi Dunes Golf Course. After reading the historical part, one of the questions was about if there'd been anything to meet guidelines if there'd been any important person living there. She didn't know if this would count, but her Grandma O'Boyle was the first woman to be a Postmistress in St. Paul Park; she things that rates as something important and is of historical value. She noticed with the EAW that they addressed the endangered species that have been seen in that area, on the property, and if you put 500 units on that land, you're going to lose the endangered species. So, she thinks development is fine, but not on that property, and she's said that all along. You have a chance to include it with the SNA, along with the Grey Cloud Island Regional Park; make it one whole thing, whether that be the State, with the DNR, or in combination with the City, like we have with the Grey Cloud Island Regional Park, as that's a combination of entities that put that together. The other thing that she noticed in the EAW is the fact that the land is sand; the EAW says that all of that sand would have to be removed for there to be any housing put in. To her, that's a red flag; if you have to remove that much soil, it's not a good place to put a development with the fact that you're going to have to use sump pumps because it's in a flood plain. The other thing she thought about was she had worked at Pullman Elementary with the Rainbow Kids Club many years ago. Where are all the children going to go? She's heard from residents in Cottage Grove that Pullman is at capacity, so if you've got 500 homes, you're going to have to build another school. That doesn't make any sense either. After reading it, they're saying it's going to be two people per household; to her, it seems like they're minimizing. Based on two people per household, that's an additional 125,000+ gallons of water per day, about 136,000+ gallons of sewage per day, and 4,000 extra cars on the road. So, choose wisely.

Frazier stated that there were two emails and a handwritten letter that were provided to staff prior to the meeting; those will be included as written public comments for this hearing so those will also go to the City Council for their review.

No one else spoke. Frazier closed the public hearing.

Fisher stated in response to Ms. O'Boyle's comments about Pullman Elementary, she's on the PTA at Pullman Elementary. She understands that this new development, along with the new development going in already just south of Mississippi Dunes, is Pullman. Pullman is not at capacity, so she just wanted to make sure that was in the public comment. She serves on the PTA, and is also involved in class sizes, as she's on another School District committee; this is not really the place to discuss the District, but there have been new schools built very recently that are not at all at capacity. She thinks the School District is doing a good job working with the City in anticipating our population growth and being able to support those children in the schools.

Approval of Planning Commission Minutes of November 22, 2021

Rasmussen made a motion to approve the minutes of the November 22, 2021 Planning Commission meeting. Knable seconded. Motion passed unanimously (5-to-0 vote).

Reports

8.1 Recap of December 2021 City Council Meetings

Costello provided a summary of actions taken at the City Council meetings in December.
December 1: Council approved the Harkness Apartments final plat and development agreement; the Mississippi Dunes Master Plan was also approved.
December 15: The Mississippi River Critical Corridor Ordinance Amendment was approved; NorthPoint Development was approved, so they'll move forward with making application for their first phase.

Council Member Dennis wished each of the commissioners and their families a wonderful Christmas week and all holidays celebrated this time of year. As always, we appreciate very much the work the commissioners do for the City.

8.2 Response to Planning Commission Inquiries

None

8.3 Planning Commission Requests

None

Adjournment

Brittain made a motion to adjourn the meeting. Fisher seconded. Motion passed unanimously 5-to-0 vote). The meeting was adjourned at 7:27 p.m.

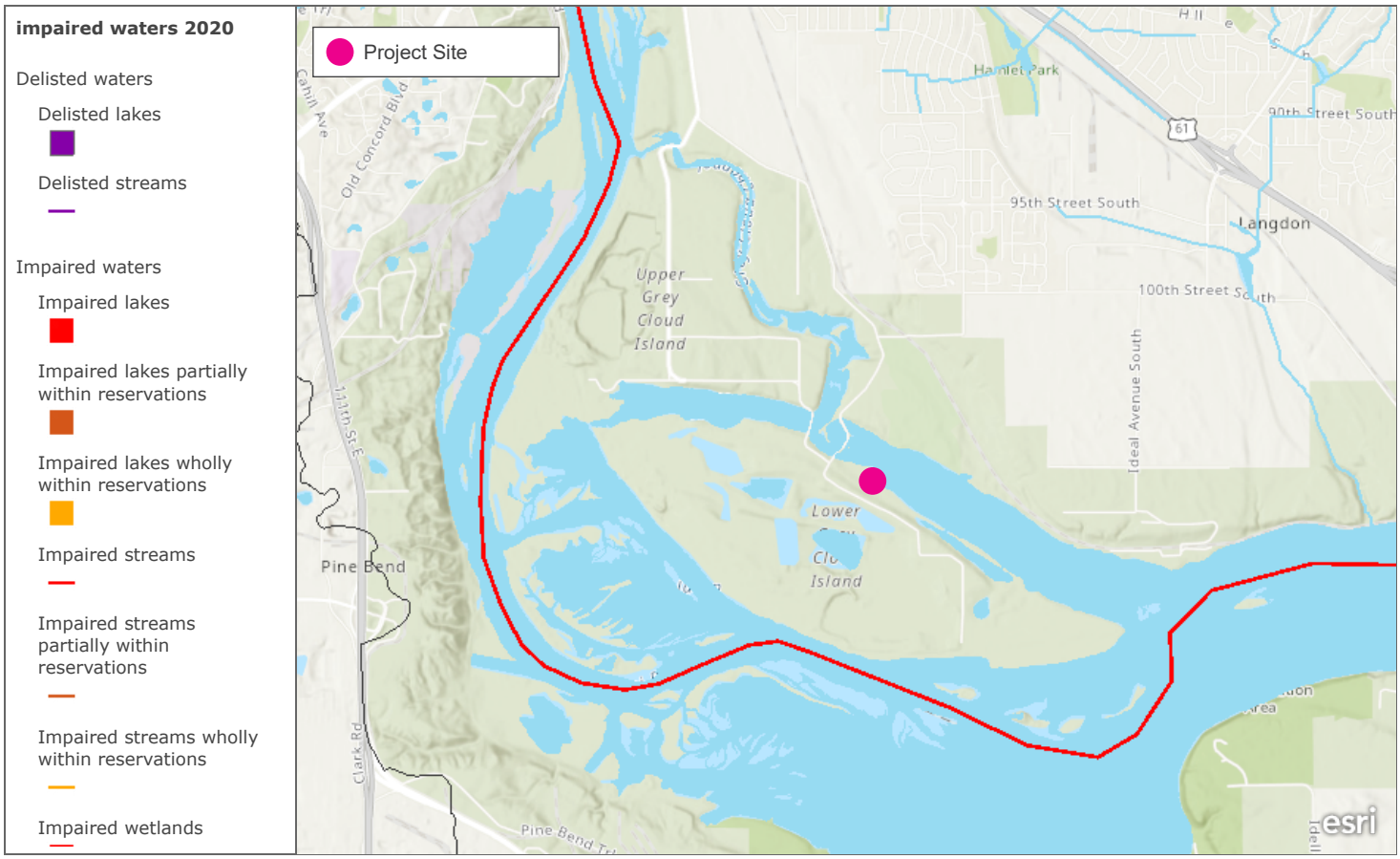
ATTACHMENT 2. IMPAIRED WATERS MAP

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

Impaired Waters 2020 - MPCA Impaired Waters Viewer



2020 impaired waters list, based on 2018 water quality assessments. This service is used by the MPCA's Impaired Waters Viewer.

Esri, NASA, NGA, USGS, FEMA | County of Dakota, Metropolitan Council, MetroGIS, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

ATTACHMENT 3. REVISED TRAFFIC STUDY

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

DUNES

RESIDENTIAL DEVELOPMENT

SSTS

S² TRAFFIC SOLUTIONS

TRAFFIC IMPACT STUDY

in

Cottage Grove, MN

January 11, 2021

Dunes

Cottage Grove, MN

TRAFFIC IMPACT STUDY

PROJECT NO. 2021_012

January 11, 2022

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota:

Vernon E. Swing, P.E.

Date: 1-11-2022 Lic. No.: 41417

TRAFFIC IMPACT STUDY

FORMER MISSISSIPPI DUNES PROPERTY

COTTAGE GROVE, MINNESOTA

January 11, 2022

Prepared For:

Pulte Homes

Prepared By:

S² Traffic Solutions, LLC
4290 Norwood Lane North
Plymouth, MN 55442
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Project No. 2021_012

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TECHNICAL APPENDICES

(Available upon Request)

A. TRAFFIC COUNTS

B. TRIP GENERATION CALCULATIONS

C. RESULTS OF OPERATIONAL ANALYSES

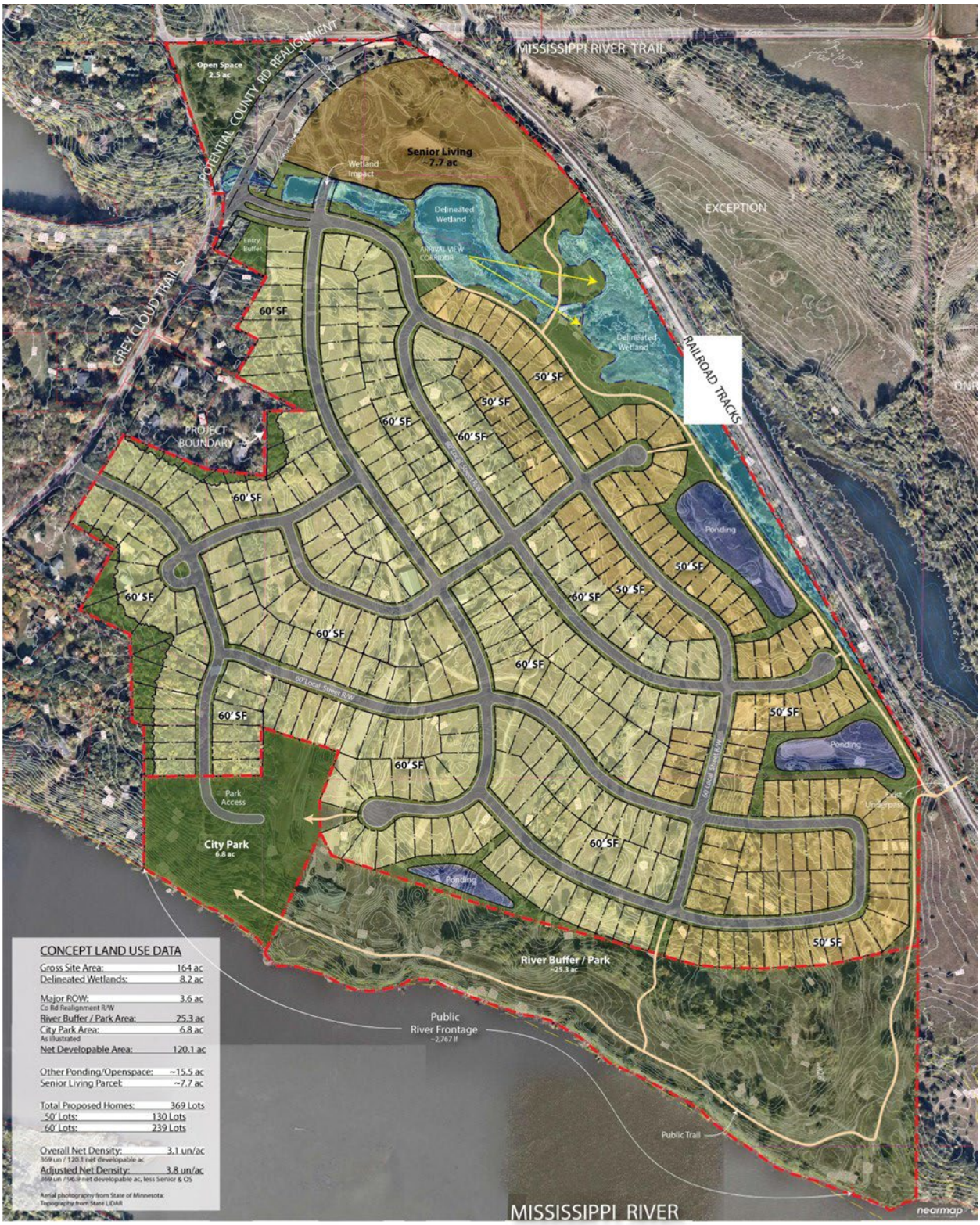
I. INTRODUCTION

Pulte Homes proposes to redevelop the Mississippi Dunes Golf Course site of approximately 164-acres as a single family detached residential homes development plus a senior attached residential building referred to as the Dunes. The project will consist of a maximum of 369 single-family homes and 130 senior attached units. For the purposes of this study, it is anticipated that construction will be complete, and the facilities fully occupied by 2026.

The proposed site is located to the south of 103rd Street S and to the east of Grey Cloud Trail S and is bordered on the south by Mooers Lake. The site location is illustrated on Figure 1, "Vicinity Map". Direct access to the site is proposed via two locations both originating from Grey Cloud Trail S and progressing southeastward into the site. Indirect access is available from Jamaica Avenue S, Hadley Avenue S, 95th Avenue S, and 100th Street S via the intersection of 103rd Street S with Grey Cloud Trail S. Indirect access is also available from Grey Cloud Island Drive S via both the northern and southern intersections with Grey Cloud Trail S. The location of the direct accesses is illustrated on the Concept Site Plan, Figure 2.

The purpose of this study is to support the Environmental Assessment Worksheet (EAW) completed for the subject development, particularly to evaluate the impact of traffic generated by the proposed development on the operations and safety of the adjacent roadway network. The study focuses on the roads and intersections that provide direct and indirect access into the site. This study details the existing and future roadway conditions at studied intersections and includes traffic volumes, lane geometrics and traffic operational analysis results. Recommendations regarding roadway improvements to accommodate site generated traffic, as well as the anticipated growth in background traffic are included as necessary.

Figure 1 - Vicinity Map



Westwood

Pulte Homes

8-18-2021
0030343

DUNES
COTTAGE GROVE, MN

0' 150' 300' 450'

Figure 2 - Concept Site Plan (By Others)

I. Existing Conditions

A. Data Collection

The existing conditions of the nearby roadway system were documented by a field inventory conducted during the week of September 8, 2021. The purpose was to identify features that affect roadway capacity, including traffic control, sight distances, turn lanes, speed limits, etc. In addition, turning movement traffic counts were conducted revealing the AM Peak hour occurs at 7:30 – 8:30 AM and the PM Peak hour at 4:00 PM – 5:00 PM at the following intersections:

- 103rd Street S & Grey Cloud Trail
- Hadley Avenue S & 100th Street S
- 100th Street S & Jamaica Avenue S
- Hadley Avenue S & 95th Street S
- Jamaica Avenue S & 95th Street S
- Grey Cloud Island Drive and Grey Cloud Island Trail 3-way intersection
- Grey Cloud Island Drive and Grey Cloud Island Trail intersection on the Island

Figure 3 illustrates the study area, the existing geometrics, and the traffic control, and Figure 4 shows the existing AM and PM Peak hour turning movement counts. Also, the 2019 average daily traffic volumes in the study area as published by MnDOT are included on Figure 4. It is noted, Covid-19 has affected the travel patterns during peak times. Current patterns in the Twin Cities suggest the total daily traffic volumes are at levels similar to pre-Covid conditions, but the AM peak is much less intense, and the PM peak is occurring earlier with less volume but is lasting longer. The volumes in this report have not been adjusted to reflect pre-Covid conditions.

B. Roadway Descriptions

The existing geometrics of the Study Area Roadway Network have been documented based on a field review. The discussion that follows details specific items such as lane layout, roadway classifications, and turn lane storage lengths.

- **Jamaica Avenue S,** runs generally north/south to the east of the site. It is a City of Cottage Grove Minnesota State Aid (MSA) road and is functionally classified as an A Minor Expander. In the study area, it is a 4-lane road, undivided to the south of 95th Street S, and divided to the north with designated left right turn lanes at intersection with 95th Street S. It provides indirect access to the site via the intersection with 100th Street S and subsequently 103rd Street S. It is signed for 45 mph, and has an urban cross-section.

- **Hadley Avenue S,** runs generally north-south to the east of the site. It is a City of Cottage Grove MSA road and is functionally classified as a Major Collector. In the study area, it is a two lane road with right and left turn lanes provided at major intersections. Hadley Avenue S provides indirect access to the site via the intersection with 100th Street S and subsequently 103rd Street S. It is signed for 40 mph and has an urban cross-section.

- **95th Street S,** runs generally east-west to the northeast of the site. It is a City of Cottage Grove MSA road and is functionally classified as a Major Collector. In the study area, it is generally a 4-lane road. 95th Street S provides indirect access to the site via the intersection with Hadley Avenue S and subsequently 103rd Street S. It is signed for 45 mph and has an urban cross-section

- **100th Street S,** generally runs in an east-west direction to the east of the site. It is a City of Cottage Grove (MSA) road and is functionally classified as a Major Collector/Other Arterial, and in the future it is planned as an A-Minor Expander. In the vicinity of the site, it is a 2-lane undivided road with dedicated right turn lanes and left turn by-pass lanes at major intersections. It provides indirect access to the site via its connection to 103rd Street S. It is signed for 50 mph and generally has an urban cross-section.

- **103rd Street S,** generally runs in an east-west direction to the north of the site. It is a City of Cottage Grove MSA roadway and is functionally classified as a Major Collector. It provides indirect access to the site via its intersection with Grey Cloud Trail S, is a 2-lane facility and is signed for 40 mph.

- **Grey Cloud Trail S,** runs generally north-south adjacent to the site. It is a Cottage Grove MSA roadway and is functionally classified as a Major Collector. It provides direct access to the site via two new intersections. Grey Cloud Trail S is a 2-lane undivided facility, is signed for 40-mph, and currently has a rural cross-section.

- **Grey Cloud Island Dr S,** runs generally north/south to the west of the site. It is a City of Cottage Grove Local Street. In the vicinity of the site, it is a 2-lane undivided and it provides indirect access to the site via its intersections with Grey Cloud Trail S. It is signed for 35 mph and has a rural cross-section.

As mentioned above, the existing geometric conditions at the study area intersections have been reviewed and are summarized on Figure 3. It is noted, 103rd Street S passes under an active rail line just to the east of Grey Cloud Trail S. This underpass is stop controlled on both approaches as the roadway curvature and width of the underpass will not accommodate more than one oversized vehicle at a time.

Figure 3 - Existing Geometrics

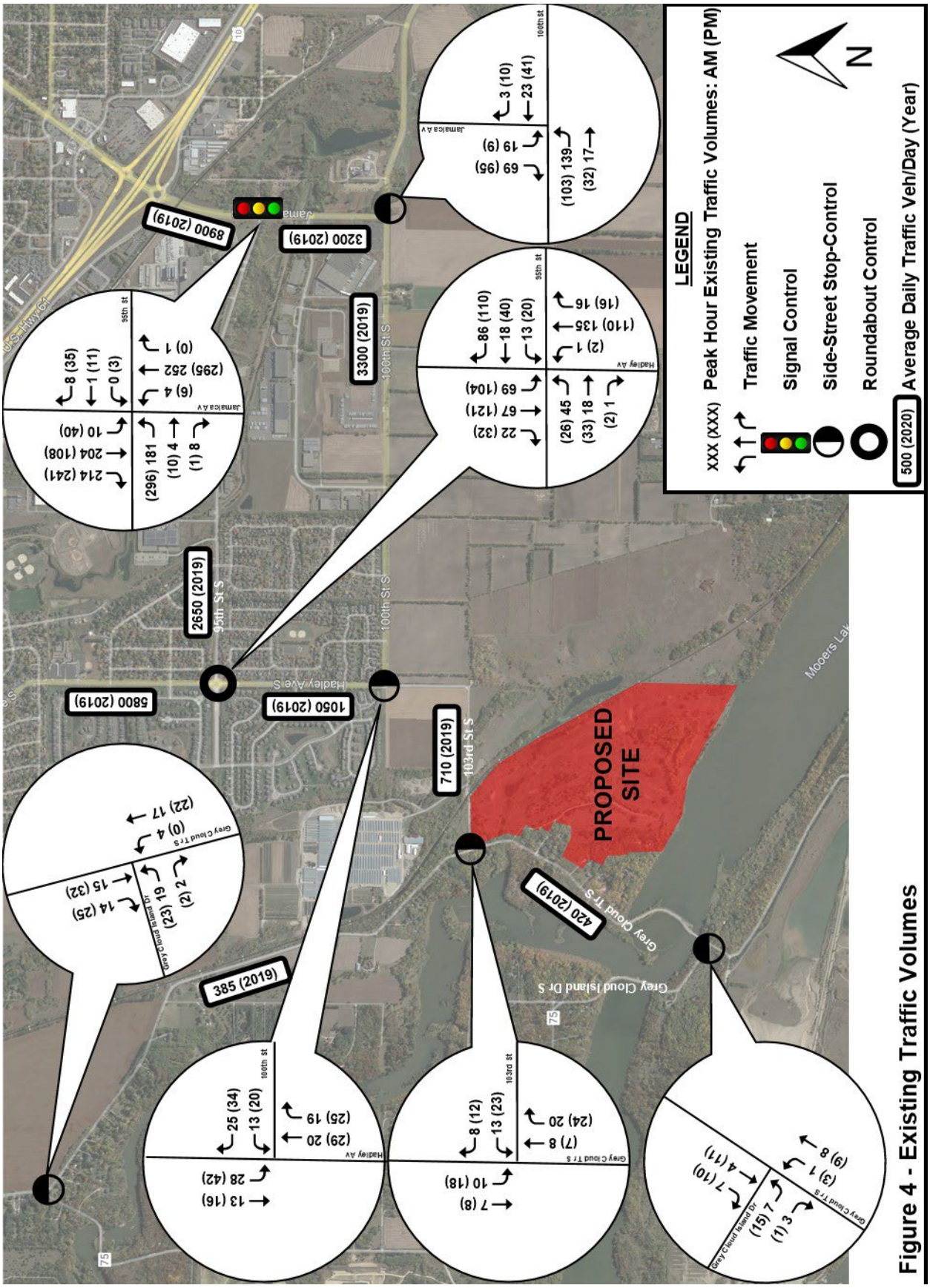


Figure 4 - Existing Traffic Volumes

III. NO-BUILD ALTERNATIVE

To address the impacts of a development on the surrounding roadway system, it is necessary to predict the traffic that would be present on the roadway system at the time (the design year) of completion of the proposed development, without the inclusion of the proposed development. This is considered the No-Build scenario, and serves as a basis with which to compare Build scenarios. In this study two design years were analyzed 2026, the year after the development is fully built and occupied, and 2040, the current planning year horizon.

A. Background Growth

Review of the latest City of Cottage Grove Comprehensive Transportation Plan indicates the traffic in the area is expected to increase. The City's Comprehensive Plan indicates traffic will grow by approximately 1.3 percent per year between now and 2040. This rate is likely conservative as ITE and the Transportation Research Board suggest traffic patterns will permanently change due to the impact of COVID-19 with fewer home to work and work to home trips likely to occur in the future. Figures 5 and 6 illustrate the anticipated 2026 and 2040 No-Build peak hour traffic volumes.

B. Anticipated Improvements for No-Build Conditions

There are no programmed improvements identified for the roadways surrounding the site. For the purposes of this study it is assumed that the current roadway condition will remain as is.

C. Results of Analysis

The study area intersections identified in Section II were analyzed for the 2026 and 2040 No-Build scenarios. Complete discussion of the results of these analyses is provided in Section IV, where a comparison with corresponding design year Build alternatives are made.

Figure 5 - 2026 No-Build Traffic Volumes

Figure 6 - 2040 No-Build Traffic Volumes

IV. BUILD ALTERNATIVE

A. Site-Generated Traffic

The number of vehicle trips generated by the maximum 369 single family homes and 130 Unit Senior Attached Residences to be developed as part of the Dunes residential development were estimated for the weekday daily, and AM and PM traffic peak hours using the data and methodologies contained in the 10th Edition of Trip Generation, published by the Institute of Transportation Engineers (ITE). The proposed development will include single-family homes corresponding to ITE Land Use Code 210 and senior attached residential units corresponding to ITE Land Use Code 252. Table 1 summarizes the trip generation estimates.

Table 1
Trip Generation

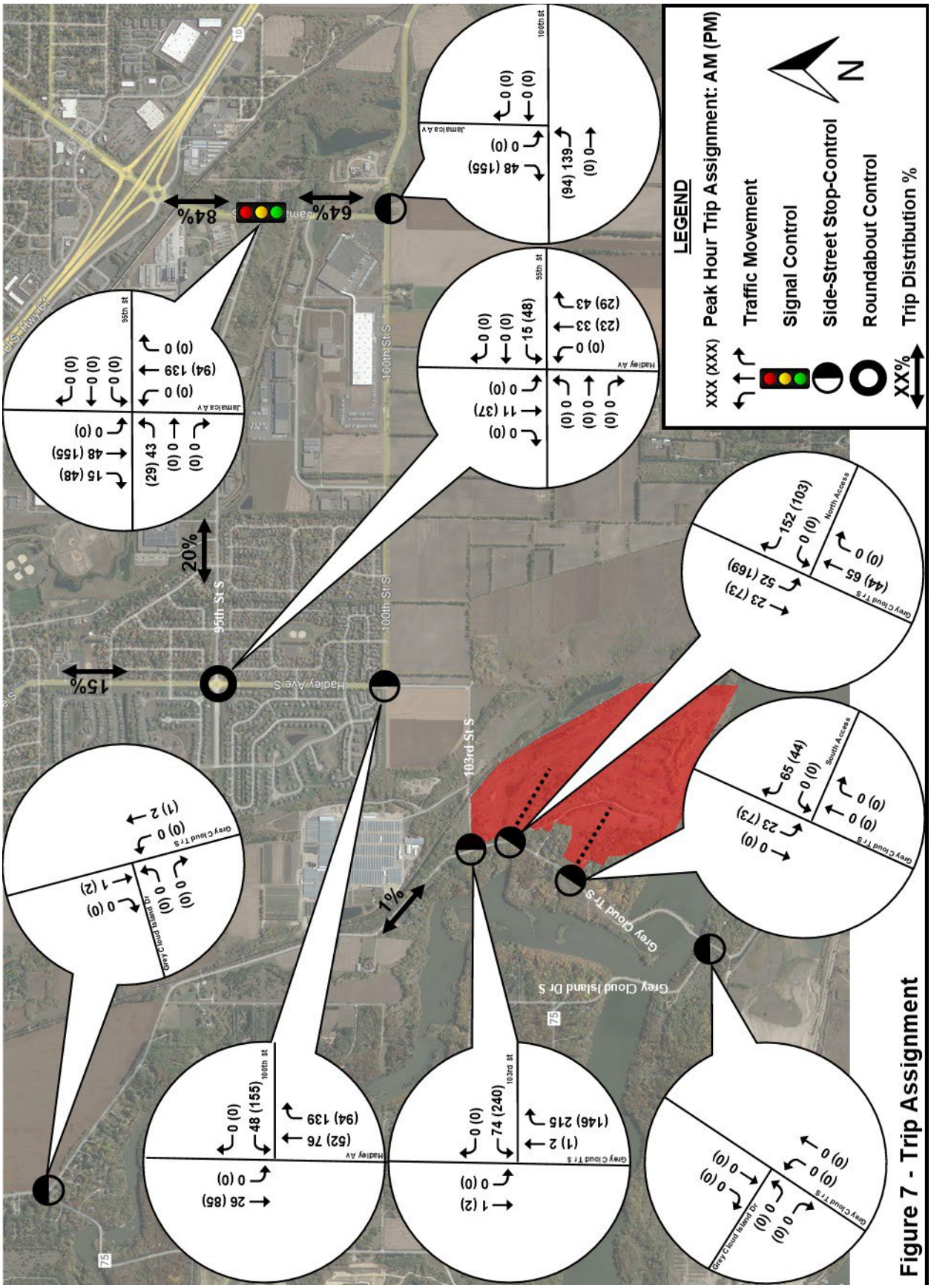
Land Use	Land Use Code	Size		Trips Generated				
				AM peak		PM Peak		Weekday ADT
				Enter	Exit	Enter	Exit	
Single Family Housing	210	369	Homes	67	200	224	132	3456
Senior Attached Units	252	130	Units	**9**	17	18	15	497
Totals				**76**	**217**	**242**	**147**	**3953**
				293		**389**		

1. Per the data and methodologies in Trip Generation, 10th Edition, published by ITE.

B. Trip Distribution and Assignment

The distribution of site-generated traffic from and to the adjacent street system was based on existing traffic patterns in the area and on travel time forecasts recorded during the peak traffic times using google maps. Figure 7, titled "Trip Distribution and Trip Assignment," depicts the distribution of the estimated site-generated traffic entering and exiting the study area roadway network, with 100 percent destined to/from the north. This traffic is then distributed accordingly, with 15 percent utilizing the Hadley Avenue and TH 61 interchange, 84 percent utilizing the Jamaica Avenue S and TH 61 interchange (with 20 percent diverting

to 95th Street S when the traffic light is red or when visiting retail on the way home) and 1 percent utilizing Grey Cloud Trail. Site-generated traffic was assigned to the network accordingly and is also illustrated on Figure 7. (It is noted the volume of traffic turning left into the northern access may benefit from the installation of a left turn lane as traffic on Grey Cloud Trail S increases in the future. However, this study did not include a dedicated left turn lane at this access in the analysis.)


LEGEND
XXX (XXX) Peak Hour Trip Assignment: AM (PM)
Traffic Movement
Signal Control
Side-Street Stop-Control
Roundabout Control
XX% Trip Distribution %
N
Hadley Ave S
95th St S
100th St S
103rd St S
Grey Cloud T r S
Grey Cloud Island Dr S
Grey Cloud Island Dr
Jamaica A v
100th st
95th st
South Access
North Access
64%
84%
20%
15%
1%
Figure 7 - Trip Assignment

C. Build Traffic Volumes

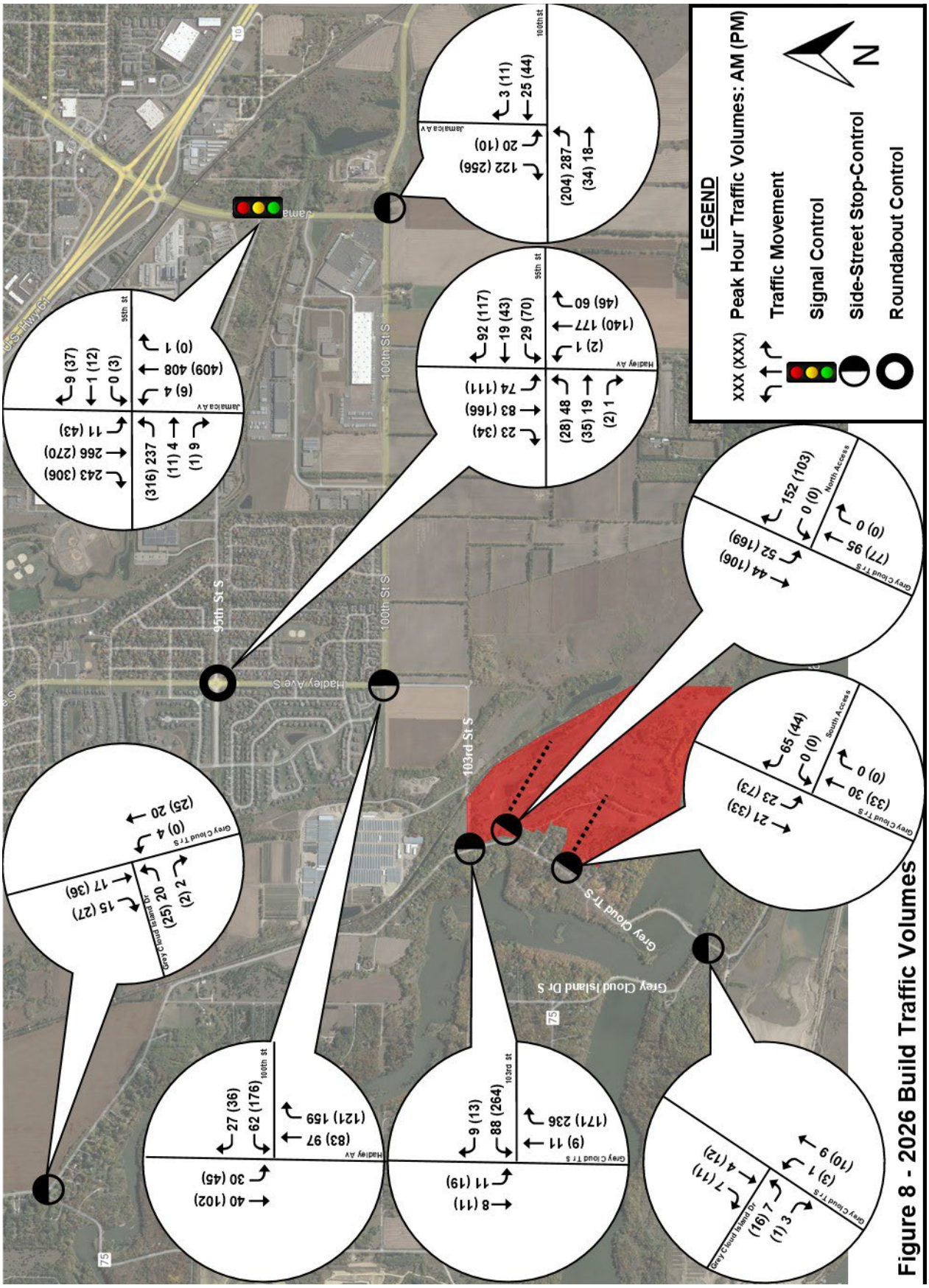
When combined, the site-generated traffic volumes and No-Build scenario traffic volumes result in the Build scenario traffic volumes, shown on Figures 8 and 9 for the 2026 and 2040 design years, respectively.

D. Intersection Operational Analysis Description

The operating conditions of transportation facilities, such as roadways, traffic signals and stop-controlled intersections, are evaluated based on the relationship of the theoretical capacity of a facility to the actual traffic volume on that facility. Various factors affect capacity including travel speed, roadway geometry, grade, number of travel lanes, and intersection control. The current standards for evaluating capacity and operating conditions are contained in the 6th Edition of Highway Capacity Manual, published by the Transportation Research Board. The procedures describe operating conditions in terms of driver delay represented as a Level of Service (LOS). Operations are given letter designations with "A" representing the best operating conditions and "F" representing the worst. Generally, level of service "D" represents the threshold for acceptable overall intersection operating conditions during a peak hour. The Chart below summarizes the level of service and delay criteria for signalized and unsignalized intersections.

LOS Designation	Signalized Intersection Average Delay/Vehicle (Sec.)	Unsignalized Intersection Average Delay/Vehicle (Sec.)
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

A final fundamental component of operational analyses is a study of vehicular queuing, or the line of vehicles waiting to pass through an intersection. An intersection can operate with an acceptable Level of Service, but if queues from the intersection extend back to block entrances to turn lanes or accesses to adjacent land uses, unsafe operating conditions could result. In this report, the Industry Design Standard 95th percentile queue length is used. The 95th Percentile Queue Length refers to that length of vehicle queue that has only a five-percent probability of occurring during an analysis hour.


LEGEND
XXX (XXX) Peak Hour Traffic Volumes: AM (PM)
Traffic Movement
Signal Control
Side-Street Stop-Control
Roundabout Control
N
95th St S
100th St S
103rd St S
Hadley Ave S
Grey Cloud Island Dr S
Grey Cloud Tr S
Jamaica Av
Hadley Av
55th st
100th st
103rd st
Grey Cloud Island Dr
Grey Cloud Tr S
North Access
South Access
75
10
494
Jamaica Av
(316) 237
(11) 4
(1) 6
243 (306)
266 (270)
11 (43)
(409) 408
(6) 4
(0) 1
9 (37)
1 (12)
0 (3)
55th st
92 (117)
19 (43)
29 (70)
74 (111)
83 (166)
23 (34)
(28) 48
(35) 19
(2) 1
(140) 177
(2) 1
(46) 60
Hadley Av
122 (256)
20 (10)
3 (11)
25 (44)
(204) 287
(34) 18
100th st
40 (102)
30 (45)
27 (36)
62 (176)
(83) 97
(121) 159
Hadley Av
100th st
8 (11)
11 (19)
9 (13)
88 (264)
(9) 11
(171) 236
Grey Cloud Tr S
103rd st
15 (27)
17 (36)
Grey Cloud Island Dr
(25) 20
(2) 2
Grey Cloud Tr S
(0) 4
(25) 20
21 (33)
23 (73)
65 (44)
0 (0)
South Access
Grey Cloud Tr S
(33) 30
(0) 0
44 (106)
52 (169)
152 (103)
0 (0)
North Access
Grey Cloud Tr S
(77) 95
(0) 0
7 (11)
4 (12)
Grey Cloud Island Dr
(16) 7
(1) 3
Grey Cloud Tr S
(3) 1
(10) 9
Figure 8 - 2026 Build Traffic Volumes

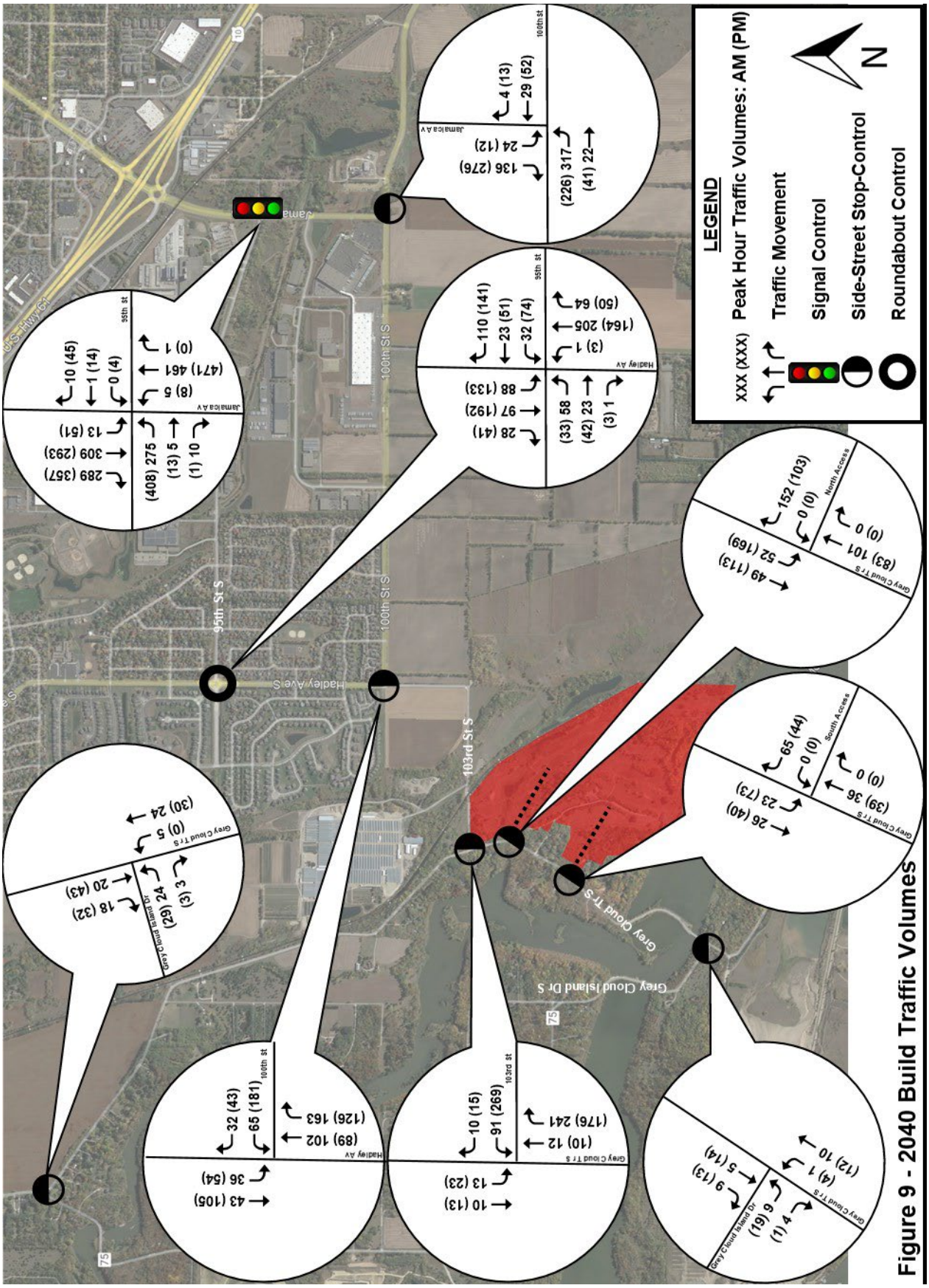


Figure 9 - 2040 Build Traffic Volumes

E. Results of Analysis

This section contains the results of the intersection operational analyses based on Synchro/Simtraffic, 11th Edition, and provides recommendations, as necessary to mitigate the impacts. It is noted, the reported results are from the aggregate of 10 SimTraffic simulations which use a random number generator to seed the network with vehicles. These results reflect dynamic conditions and a more accurate than the results of the static analysis reported by Synchro, however, due to random number generator can sometimes show slightly better results on minor movements under higher traffic conditions when the intersections are operating at very good LOS. Table 2 summarize the results of the operational analyses for the 2026 No Build scenario (assumes 1.0 percent annual growth in traffic from existing conditions).

Table 2
2026 No-Build Operations

Intersection	Overall/Worst Movement LOS & Delay (sec)		Notes/95th Percentile Q
	AM Peak Hour	PM Peak Hour	
Grey Cloud Island Dr S & Grey Cloud Trail S (south)	a (1.1)/a ebl (3.4)	a (1.5)/a ebl (3.6)	EB Q is 30 ft in AM; EB Q is 37 ft in PM
103rd Street S & Grey Cloud Trail S	a (1.1)/a wbl (4.0)	a (1.4)/a wbl (3.8)	WB Q is 36 ft in AM; WB Q is 37 ft in PM
100th Street S & Hadley Avenue S	a (1.1)/a wbl (3.2)	a (1.5)/a wbl (5.8)	WB Q is 39 ft in AM; WB Q is 51 ft in PM
95th Street S & Hadley Avenue S	*a (4.3)/a wbl (7.1)*	*a (4.8)/a wbl (7.5)*	NB Q is 37 ft in AM; SB Q is 42 ft in PM
Grey Cloud Island Dr S & Grey Cloud Trail S (north)	a (1.0)/a ebr (2.5)	a (1.1)/a ebr (2.9)	-NA - ; EBR Q is 13 ft in PM
95th Street S & Jamaica Avenue S	A (6.2)/C EBT (25.7)	A (9.7)/C WBT (30.2)	EBL Q is 133 ft in AM; EBL Q is 173 ft in PM
100th Street S & Jamaica Avenue S	a (8.6)/c wbt (16.8)	b (11.4)/d sbl (32.0)	SBR Q is 214 ft in AM; SBR Q is 242 ft in PM

1. Overall Level of Service reported from SimTraffic delay, first letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersection, lower-case letters indicate unsignalized intersection, and italic letters signify roundabouts
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

The results shown in Table 2 indicate all intersections and worst movements are expected to operate at acceptable LOS in 2026 without the proposed project. Further, the results indicate all intersections will

experience manageable vehicle queues. No intersection modifications are suggested for the 2026 No-Build condition. Table 3 summarizes the operational analyses results for the 2026 Build conditions.

Table 3
2026 Build Operations

Intersection	Overall/Worst Movement LOS & Delay (sec)		Notes/95th Percentile Q
	AM Peak Hour	PM Peak Hour	
Grey Cloud Island Dr S & Grey Cloud Trail S (south)	a (1.0)/a ebl (3.5)	a (1.2)/a ebl (3.5)	EB Q is 28 ft in AM; EB Q is 35 ft in PM
103rd Street S & Grey Cloud Trail S	a (1.7)/a wbl (4.3)	a (4.6)/a wbl (7.8)	WB Q is 51 ft in AM; WB Q is 83 ft in PM
100th Street S & Hadley Avenue S	a (2.5)/a wbl (6.9)	a (4.1)/b wbl (11.4)	WB Q is 49 ft in AM; WB Q is 90 ft in PM
95th Street S & Hadley Avenue S	*a (4.7)/a wbl (7.6)*	*a (6.3)/b wbl (10.7)*	NB Q is 47 ft in AM; WB Q is 69 ft in PM
Grey Cloud Island Dr S & Grey Cloud Trail S (north)	a (0.9)/a ebr (1.6)	a (1.2)/a ebr (2.9)	EBR Q is 13 ft in AM; EBR Q is 15 ft in PM
95th Street S & Jamaica Avenue S	A (6.9)/C EBL (20.3)	B (10.1)/D WBL(38.9)	EBL Q is 135 ft in AM; EBL Q is 167 ft in PM
100th Street S & Jamaica Avenue S	b (11.5)/c sbr (18.3)	a (4.8)/b sbl (10.1)	SBR Q is 246 ft in AM; SBR Q is 62 ft in PM
North Access & Grey Cloud Trail S	a (2.6)/a wbr (3.9)	a (2.3)/a sbl (3.2)	WBR Q is 66 ft in AM; WBR Q is 53 ft in PM
South Access & Grey Cloud Trail S	a (2.2)/a wbr (2.9)	a (1.9)/a wbr (2.7)	WBR Q is 49 ft in AM; WBR Q is 44 is PM

1. Overall Level of Service reported from SimTraffic delay, first letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersection, lower-case letters indicate unsignalized intersection, and italic letters signify roundabouts
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

The results shown in Table 3 indicate all intersections and worst movements are expected to operate at acceptable LOS in 2026 with the proposed project. Further, the results indicate all intersections will experience manageable vehicle queues. It is noted the project will have a negligible impact on the operations of the Grey Cloud Island Dr S and Grey Cloud Trail S intersections. (Again, when the operations of the intersection and critical movements are at LOS A, the random number generator can sometimes show slightly better delay or queuing results on minor movements even with higher traffic volume conditions.)

F. 2040 Operations

The long-range planning horizon year is 2040, as mentioned in the No-Build section. The results of the analysis of the 2040 No-Build traffic conditions, which continue to reflect a 1.3 percent annual growth rate, assume the roadways surrounding the site have the current configuration. Table 4 summarizes the 2040 No-Build operations at the study area intersections.

Table 4
2040 No-Build Operations

Intersection	Overall/Worst Movement LOS & Delay (sec)		Notes/95th Percentile Q
	AM Peak Hour	PM Peak Hour	
Grey Cloud Island Dr S & Grey Cloud Trail S (south)	a (0.9)/a ebl (3.9)	a (1.3)/a ebl (3.6)	EB Q is 33 ft in AM; EB Q is 37 ft in PM
103rd Street S & Grey Cloud Trail S	a (1.0)/a wbl (3.3)	a (1.6)/a wbl (3.9)	WB Q is 38 ft in AM; WB Q is 43 ft in PM
100th Street S & Hadley Avenue S	a (1.2)/a wbl (4.6)	a (1.3)/a wbl (5.5)	WB Q is 39 ft in AM; WB Q is 45 ft in PM
95th Street S & Hadley Avenue S	*a (5.2)/a wbr (5.2)*	*a (6.0)/a wbl (10.0)*	NB Q is 57 ft in AM; SB Q is 65 ft in PM
Grey Cloud Island Dr S & Grey Cloud Trail S (north)	a (0.8)/a ebr (2.6)	a (1.1)/a ebr (3.3)	-NA - ; EBR Q is 9 ft in PM
95th Street S & Jamaica Avenue S	A (7.1)/B EBL (17.6)	B (12.4)/C EBL (22.0)	EBL Q is 128 ft in AM; EBL Q is 220 ft in PM
100th Street S & Jamaica Avenue S	a (2.5)/a sbl (5.2)	a (2.7)/a sbl (5.1)	EBL Q is 33 ft in AM; SBR Q is 44 ft in PM

1. Overall Level of Service reported from SimTraffic delay, first letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersection, lower-case letters indicate unsignalized intersection, and italic letters signify roundabouts
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations.

The results shown in Table 4 indicate all intersections and worst movements are expected to operate at acceptable LOS in 2040 without the proposed project. Further, the results indicate all intersections will experience manageable vehicle queues. (Again, when the operations of the intersection and critical movements are at LOS A, the random number generator can sometimes result in slightly better delay or queuing results on minor movements even with higher traffic volume conditions.) Table 5 summarizes the results of the 2040 Build traffic operational analysis, assuming no improvements or mitigation.

Table 5
2040 Build Operations

Intersection	Overall/Worst Movement LOS & Delay (sec)		Notes/95th Percentile Q
	AM Peak Hour	PM Peak Hour	
Grey Cloud Island Dr S & Grey Cloud Trail S (south)	a (0.8)/a ebl (3.2)	a (1.5)/a ebl (3.9)	EB Q is 22 ft in AM; EB Q is 36 ft in PM
103rd Street S & Grey Cloud Trail S	a (1.4)/a wbl (3.9)	a (4.4)/a wbl (7.7)	WB Q is 31 ft in AM; WB Q is 85 ft in PM
100th Street S & Hadley Avenue S	a (2.0)/a wbl (4.2)	a (3.8)/b wbl (10.1)	WB Q is 54 ft in AM; WB Q is 95 ft in PM
95th Street S & Hadley Avenue S	*a (4.5)/a wbl (7.9)*	*a (6.0)/a wbl (8.9)*	NB Q is 53 ft in AM; WB Q is 55 ft in PM
Grey Cloud Island Dr S & Grey Cloud Trail S (north)	a (1.0)/a ebr (1.3)	a (0.9)/a ebr (2.5)	NA; NA
95th Street S & Jamaica Avenue S	A (8.5)/B EBL (19.0)	B (11.9)/D WBL(36.5)	EBL Q is 143 ft in AM; EBL Q is 196 ft in PM
100th Street S & Jamaica Avenue S	a (3.3)/a sbl (6.3)	a (5.4)/a sbl (7.9)	EBL Q is 42 ft in AM; SBR Q is 68 ft in PM
North Access & Grey Cloud Trail S	a (2.2)/a wbr (3.6)	a (2.4)/a sbl (3.0)	WBR Q is 63 ft in AM; WBR Q is 47 ft in PM
South Access & Grey Cloud Trail S	a (1.6)/wbr (3.0)	a (2.0)/a wbr (2.0)	WBR Q is 32 ft in AM; WBR Q is 52 ft in PM

1. Overall Level of Service reported from SimTraffic delay, first letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersection, lower-case letters indicate unsignalized intersection, and italic letters signify roundabouts
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations

The results shown in Table 5 indicate all intersections are expected to operate at acceptable overall LOS in 2040 with the proposed project. Further, the results indicate all intersections will experience short to moderate vehicle queues, which are typical for peak hour conditions. As with the 2026 Build conditions, the project will have a negligible impact on the operations of the Grey Cloud Island Dr S and Grey Cloud Trail S intersections. (Again, when the operations of the intersection and critical movements are at LOS A, the random number generator can sometimes result in slightly better delay or queuing results on minor movements even with higher traffic conditions.)

In addition to the forecast conditions at the study area intersections identified earlier in this document, two other areas were reviewed for the 2040 AM and PM Build conditions to determine if the project will result in unacceptable operations. The two areas are the railroad underpass intersection, and the Hadley Avenue

S intersections with 90th Street S and 85th Street S. As mentioned in the existing conditions section, 103rd Street S passes under an active rail line and the approach lanes for each direction of the underpass are controlled with stop signs. This treatment is in place to protect oversized vehicles such as semi-trucks which cannot navigate through the underpass without encroaching into the opposing lane of traffic. It is noted, this project will straighten the 103rd Street S underpass, however, the opening will remain narrow likely making it difficult for two oversized vehicles to pass simultaneously. The operation analysis of the 2040 AM and PM Build conditions indicate the intersection and worst movement will operate at LOS A for both peak periods with the longest 95th percentile queue estimate to be 90 feet for westbound traffic during the PM peak. That said, with the anticipated increase in traffic associated with the proposed project, it is suggested that advanced warning signs with flashers be installed to alert drivers to the unusual traffic control conditions.

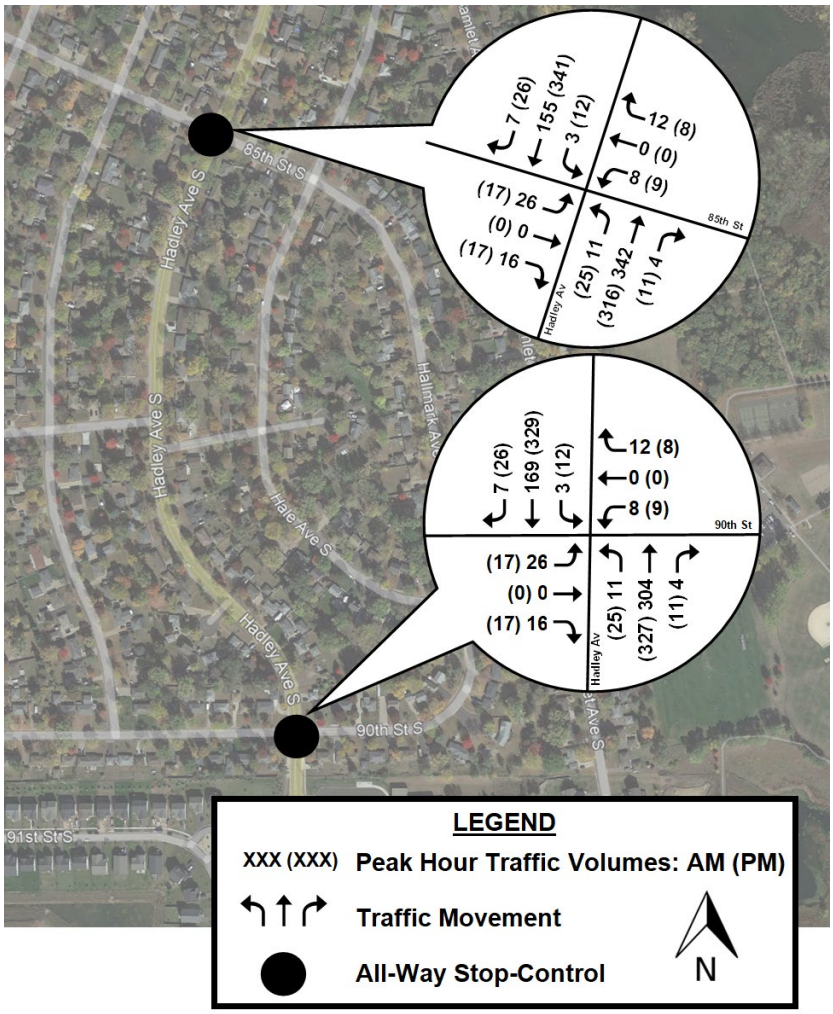
The 2040 Build AM and PM peak hour traffic operations at the Hadley Avenue S intersections with 90th Street S and 85th Street S were also analyzed using Synchro/SimTraffic Software. These intersections are all-way stop control with share left through and right movements occurring from one lane on all approaches. The volumes used in the analysis are derived from existing ADT. Exhibit 1 summarizes the 2040 Build peak hour traffic conditions at the two intersections. The results of the analyses indicate the intersection and worst movement operations for both intersections will not significantly change with the addition of traffic from the proposed project. Table 6 summarizes the results for the 2040 Build conditions.

Table 6
2040 Build Operations for Hadley Avenue S Residential Intersections

Intersection	Overall/Worst Movement LOS & Delay (sec)		Notes/95th Percentile Q
	AM Peak Hour	PM Peak Hour	
90th Street S & Hadley Avenue S	a (6.6)/a nbt (7.7)	a (7.2)/a nbt (8.2)	NB Q is 97 ft in AM; NB Q is 113 ft in PM
85th Street S & Hadley Avenue S	a (6.8)/a wbl (7.7)	a (7.6)/a sbt (8.0)	NB Q is 92 ft in AM; SB Q is 95 ft in PM

1. Overall Level of Service reported from SimTraffic delay, first letter represents intersection LOS, while second letter represents worst LOS of individual approach. Upper case letters indicate signalized intersection, lower-case letters indicate unsignalized intersection, and italic letters signify roundabouts
2. 95th percentile queues are a result from an average of 10 SimTraffic simulations

Exhibit 1 – 2040 Build Traffic Volumes at Hadley St Intersections



V. SUMMARY AND SUGGESTIONS

The preceding analysis has evaluated the potential traffic impacts of the proposed development of the Pulte Homes single family and attached senior apartment residential project, Dunes, on the operations of the study area intersections. The site is located adjacent to the east side of Grey Cloud Trail S and south side of 103rd Street S, just north of Mooers Lake in Cottage Grove, Minnesota.

Two design years were considered in this study, 2026 to correspond to the year after build-out and 2040 to remain consistent with the long range planning horizon. For both design years a No-Build and Build scenario, was analyzed and compared to assess the development's impact, and the area's future infrastructure needs. Development of the Dunes residential project on the former Mississippi Dunes Golf Course site by 2026 is expected to result in approximately 3,953 new vehicle trips on the study area roadway network per average weekday. Peak hour trips generated by the development are estimated at 293 during the AM peak hour and 389 during the PM peak hour.

The site access will include the construction of two new intersection on Grey Cloud Trail S, to the south of 103rd Street S.

Growth in background traffic at a rate of 1.3 percent per year was accounted for in the analysis. Results of the operational analyses in the 2026 and 2040 No-Build and 2026 and 2040 Build scenarios indicate all the intersections will operate at acceptable levels of service with typical Peak Hour short to moderate vehicle queues. It is suggested that the current stop sign control of the 103rd Street S underpass be augment with advanced warning flashers to alert the driver of an unusual traffic control treatment. While not warranted at this time, it may be beneficial to include a dedicated left turn lane for Grey Cloud Trail into site at the northern access intersection. No other improvements to the roadways or intersections within the study area are required.

ATTACHMENT 4. NEW HISTORY REPORT ON WILLIAM COWAN/HERB FRITZ HOUSE

ENVIRONMENTAL ASSESSMENT WORKSHEET
RESPONSE TO COMMENTS, FINDINGS OF FACT AND RECORD OF DECISION

Former Mississippi Dunes Golf Course

City of Cottage Grove, Minnesota

NEW HISTORY

HISTORICAL EVALUATION

10301 Grey Cloud Trail, Cottage Grove

November 2021

575 9TH STREET SE, STE 215 | MINNEAPOLIS, MN 55414 | 612.843.4140 | NEWHISTORY.COM

Historical Evaluation
10301 Grey Cloud Trail
Cottage Grove, Minnesota 55016

Prepared for:
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EXECUTIVE SUMMARY

This report summarizes our historical research on the 10301 Grey Cloud Trail property in Cottage Grove. The purpose of our research was to provide additional information on the history of the site. We have also provided our preliminary recommendations and professional opinion on the property's ability to qualify for local landmark and National Register of Historic Places (NRHP) designation.

Site History:

- The current site features a house and barn on 2.75 acres of land. The house was likely constructed between 1850 and 1886. The associated barn was constructed at an unknown date, but it is possible that it dates to the same time period. From the time of its construction until the mid-1900s, the property was associated with dozens of acres of surrounding farm land.
- For most of its history, the house appears to have primarily operated as a single-family residence for individuals and/or families who farmed the surrounding acreage.

Past Determinations of Historic Significance:

- The property is not currently locally designated as a historic site. A 1990 survey of Cottage Grove recommended the property for additional research and local designation.
- The property is not currently listed on the National Register of Historic Places (NRHP).

Local Landmark Designation:

- For a property to be locally designated by the City of Cottage Grove, it must demonstrate historical significance by meeting at least one of the City's five criteria for designation *and* retain integrity (the physical materials and features that were present during the time when the property achieved historical significance).
- Based on our research, we believe that the property meets Criterion 1 for its association with Cottage Grove's history as a rural, agricultural community. Additionally, the property likely meets Criterion 4 as a unique local example of limestone building construction.
- The building has experienced several alterations since its construction, which may impact its integrity.

National Register of Historic Places Designation:

- For a property to be listed on the National Register, it must demonstrate historic significance by meeting at least one of the National Park Service's Criteria for Evaluation *and* retain integrity.
- Based on our research, additional information is needed to assess the property's eligibility for the National Register. Alterations to integrity may pose a challenge to NRHP listing.

SITE HISTORY

HISTORIC CONTEXT

10301 Grey Cloud Trail is located in the southwest corner of the city of Cottage Grove in Section 30 of Township 27 North, Range 21 West. Historically, the house and barn on this property were surrounded by and associated with dozens of acres of farmland, and they are best understood within the context of the agricultural history of Cottage Grove. This section presents a brief summary of this agricultural history followed by an in-depth discussion of the history of the property itself.

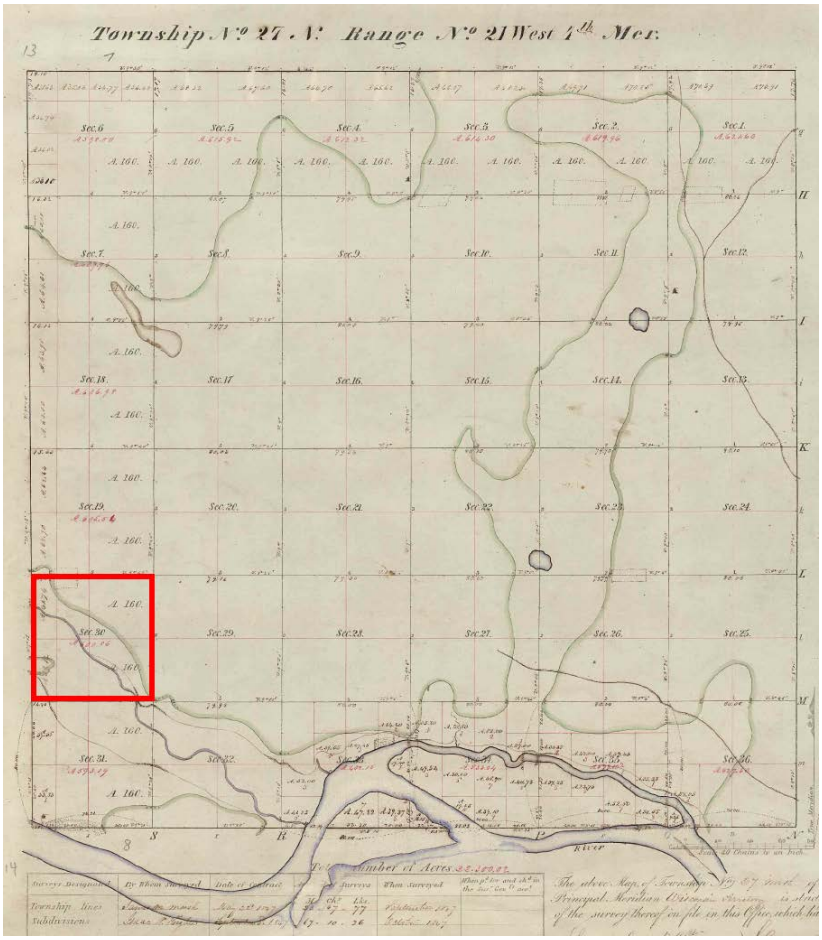

Figure 1. *1847 plat map of Township 27 North, Range 21 West. Section 30 is highlighted in red. Map courtesy of United States Bureau of Land Management and the Minnesota General Land Office.*

The City of Cottage Grove is located between the Mississippi and St. Croix Rivers in an area historically known as the St. Croix Triangle (modern-day Washington and Ramsey Counties). Most of the land within the boundaries of modern-day Cottage Grove is located in Township 27 (see Figure 1). Township 27 was first surveyed in 1847 when the St. Croix Triangle was claimed by the United States government as part of Wisconsin Territory. The area was subsequently incorporated into Minnesota Territory in 1849.[1]

The first Euro-American settler in the Cottage Grove area was likely James Sullivan Norris, who staked his claim to a portion of Section 12 of Township 27 in 1843. Norris was followed by

[1] George W. Jones, "Township No. 27N, Range No. 21 West 7th Mer.," March 15, 1848, United States Bureau of Land Management, General Land Office Historic Plat Map Retrieval System, https://www.mngeo.state.mn.us/glo/index.html; Robert Vogel, *The New England of the West: A Survey of Historic Properties Associated with Early American Settlement in Cottage Grove* (City of Cottage Grove, September 1990), 12; Robert Vogel, *Cottage Grove History: A Palimpset* (Advisory Committee on Historic Preservation, City of Cottage Grove, Minnesota, 1997), 2 – 3.

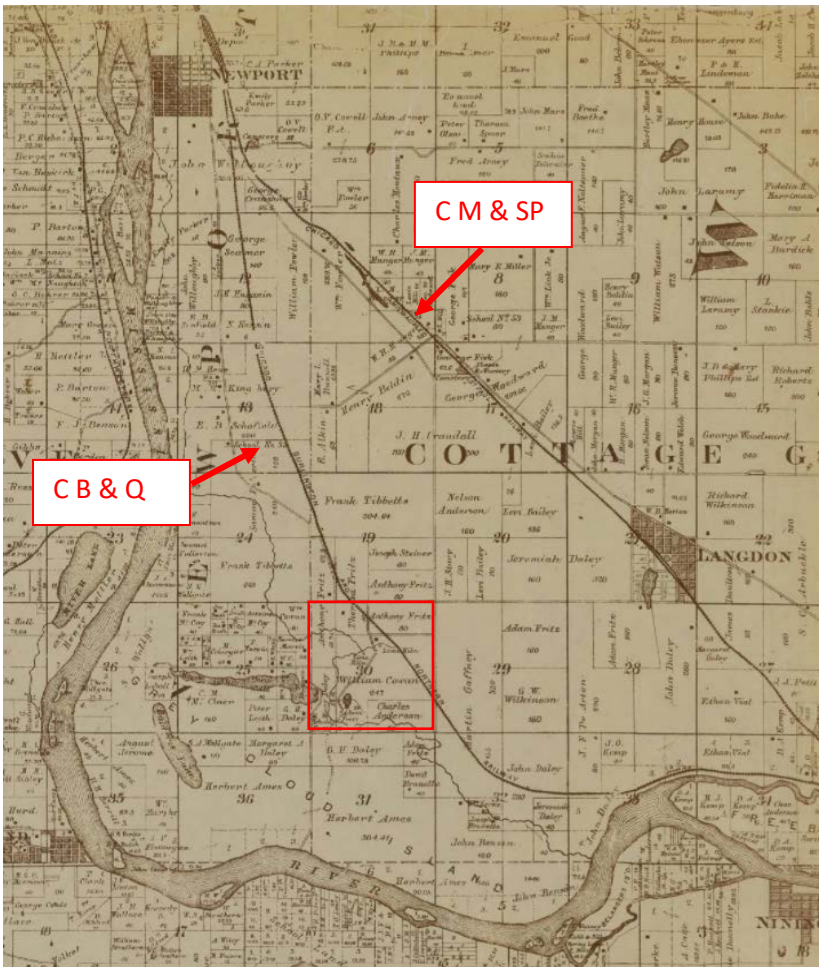

Figure 2. *1886 plat map of the Cottage Grove area showing the Chicago, Milwaukee, and St. Paul Railroad (C M & St P) and the Chicago, Burlington and Quincy (C B & Q) Railroads. Location of Section 30 indicated in red. Map courtesy of the University of Minnesota's UMedia.*

other Euro-Americans mostly from New England states, such as New York, Maine, Vermont, and New Hampshire. According to historian Robert Vogel, "by 1855, Cottage Grove was one of the fastest-growing rural townships in Minnesota, with schools, churches, a lyceum hall, and perhaps twenty or thirty farms."[2] The township of Cottage Grove was officially organized in May of 1858, days after Minnesota achieved statehood.[3]

Cottage Grove's earliest settlers were largely subsistence farmers who cultivated spring wheat or potatoes as cash crops.[4] By 1871, concentrated settlement within the township was limited to two small villages – East Cottage Grove in Section 12, near the northeast corner of the township, and Langdon in Section 21, near the center of the township. Cottage Grove was originally connected to river towns along the Mississippi River and St. Croix River via wagon roads. The township received its first railroad line in 1869 when the St. Paul and Chicago Railroad (later the Chicago, Milwaukee, and St. Paul Railroad or C M & SP) constructed a station at Langdon (see Figure 2). The Chicago, Burlington, and Quincy (CB & Q)

[2] Vogel, *Cottage Grove History,* 2 – 3; Duane D. Fisher, "The Development of Cottage Grove, The First Rural Settlement in Minnesota," term paper (Macalaster College, 1954), 5; Robert C. Vogel, "Historic Houses of Cottage Grove: A Field Guide," *Perspectives in Cottage Grove History,* no. 1 (February 1986), "A Brief History of Cottage Grove," on file at the Minnesota Historical Society, St. Paul, Minnesota; Robert Vogel, *Preliminary Inventory of Pre-1940 Houses in the City of Cottage Grove,* (Prepared for the City of Cottage Grove Parks, Recreation and Natural Resources Commission and the Advisory Committee on Historic Preservation, September 1988), 9.

[3] Edward D. Neill, *A History of Washington County and the St. Croix Valley: Including the Explorers and Pioneers of Minnesota* (Minneapolis, MN: Northstar Publishing Company, 1881), 328.

[4] Vogel, *The New England of the West,* 10 – 12.

was extended through the township in the late 1880s, passing along the southwest edge of Cottage Grove Township to connect Prescott, Wisconsin to St. Paul (see Figure 2).[5]

During the early 1860s, the Civil War created an increased demand for grain and livestock. This demand, combined with the arrival of the railroads and innovations in farm machinery, shifted the focus of agricultural production in Cottage Grove from subsistence farming to commercial agriculture. Throughout Washington County, the number of farms and the amount of acreage under cultivation increased. Concurrently, Cottage Grove experienced a second wave of immigration, including newcomers from Germany, Scandinavia, England, and Ireland. Until about 1880, agricultural production focused on wheat, which was sold and shipped to other locations. During the late 1800s, farmers expanded beyond wheat into feed grains (such as corn and oats), raising livestock, and dairy farming.[6]

Demand for agricultural products remained strong through the first World War, benefitting Cottage Grove farmers. However, increased agricultural production during this time period led to a decrease in farmland value in the 1920s. This was followed by the Great Depression of the 1930s, which brought economic challenges for farmers. According to Vogel, the result of this period of economic strain was that farming "became less of a way of life and more a highly competitive business, with fewer farmers producing more goods."[7] In the years following World War II, the number of Washington County farms decreased, and the average farm size became larger. Agriculture continued as Cottage Grove's primary economic driver until into the 1950s, when the community began to develop into a residential suburb. Between 1958 and 1960 alone, 1,200 houses were constructed in the township. Cottage Grove grew rapidly, with 800 residents in 1950, 5,000 residents in 1960, 14,300 residents in 1970, and a population of 25,000 in 1995. The Village of Cottage Grove was incorporated in 1965; it became a city in 1974.[8] Though the city has evolved substantially from its nineteenth century origins, it still retains a considerable amount of land within its borders that is zoned for agricultural and rural residential uses.[9]

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[5] Robert Vogel, *A History of Washington County: Gateway to Minnesota History* (Stillwater, MN: Washington County Historical Society, 2008), 231 – 232; Andrew J. Schmidt, Daniel Pratt, Andrea Vermeer, and Betsy Bradley, *Railroads in Minnesota, 1862 – 1956,* Multiple Property Documentation Form, 2013, Section E, page 51; Neill, *A History of Washington County and the St. Croix Valley,* 336, 372; Vogel, *Cottage Grove History,* 3 – 6.

[6] Vogel, *The New England of the West,* 12 - 13; Carole Zellie, *Washington County Historic Contexts* (prepared for Washington County Land Management, 1999), 165; Vogel, "Historic Houses of Cottage Grove*,"* 3.

[7] Vogel, *The New England of the West,* 24; Zellie, *Washington County Historic Contexts,* 167.

[8] Vogel, "Historic Houses of Cottage Grove*,"* 5; Robert Vogel, *Cottage Grove History,* 5; Willard E. Rosenfelt, *Washington: A History of the Minnesota County* (Stillwater, MN: Croixside Press, 1977), 244; MetroCouncil, "Cottage Grove: Suburban Edge Where Urban Meets Farmland and Open Space," July 17, 2017, https://metrocouncil.org/News-Events/Communities/Newsletters/Cottage-Grove-Suburban-edge-where-urban-meets-far.aspx.

[9] City of Cottage Grove, "Cottage Grove 2016 Zoning Map," June 13, 2016, https://listingsprod.blob.core.windows.net/ourlistings-usa/fc2443b4-28bc-40f6-9d13-a4f09a816bcc/b8b4f092-f528-40e2-985b-cb191fc16a0a.

10301 Grey Cloud Trail

This broader history of Cottage Grove is reflected in the history of 10301 Grey Cloud Trail. Today, the property addressed at 10301 Grey Cloud Trail includes a house and barn on 2.75 acres of land in the northeast quarter of Section 30 of Township 27. For most of its history, however, the property has comprised a small portion of much larger parcels of farm land.[10]

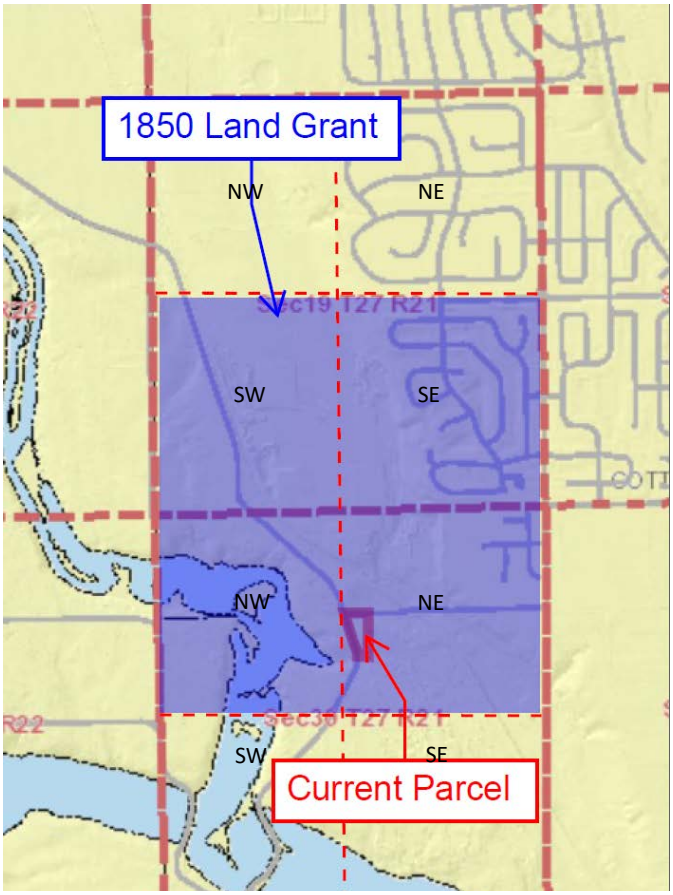

Figure 3. *1850 land grant and current parcel boundaries. Red dashed lines indicate section and quarter boundaries. Background map courtesy of Washington County.*

The earliest recorded owner of the northeast quarter of Section 30 was Alexander Fell, a private in the Sixth Regiment of the United States Infantry. Fell received 160 acres of land – the northeast and northwest quarters of Section 30 and the southeast and southwest quarters of Section 19 (see Figure 2) – under the Scrip Warrant Act of 1850, which provided free land to United States military veterans. As was common practice for recipients of these grants, Fell granted or sold his rights to this land to Jeremiah Lamb, who filed a claim for the property with the General Land Office in 1854.[11]

More research is necessary to determine the property's earliest owners with certainty. However, Washington County property records suggest that the south half of the northeast quarter of Section 30 was owned by a succession of at least three individuals between 1854 and 1864.[12] These included William B. Dibble, Louis [Lewis] Dibble, and Peter Pfiefer. According to a history of the St. Croix River Valley written in 1881, William Burris Dibble was one of the early Euro-American settlers of Washington County. Born in New York in 1815, Dibble moved to Marine Mills (11 miles north of current day Stillwater) by 1838. Around 1845, Dibble moved to Point Douglas in Denmark Township to the east of Cottage Grove. Dibble's first wife, Eliza, died in 1847, and Dibble remarried

[10] Washington County Property Information, https://maps.co.washington.mn.us/wcgis/.
[11] Military Warrant, accession number MW-0759-034, March 3, 1854, General Land Office, https://glorecords.blm.gov/details/patent/default.aspx?accession=0759-034&docClass=MW&sid=jq5vpuvb.sfl#patentDetailsTabIndex=1; James W. Oberly, "Military Bounty Land Warrants in the United States, 1847-1900," February 17, 1992, ICPSR, https://doi.org/10.3886/ICPSR09514.v1
[12] The completion of a chain of title for the property was beyond the scope of this research. More research is necessary to confirm early ownership of the property. See tract pages for the northeast quarter of Section 30, Township 27, Range 21, on file at the Washington County Property Records and Taxpayer Services, Stillwater, MN.

Mary Ann Wright in 1853. Dibble appears to have continued to farm in Point Douglas until his death in 1883. It is unclear why Dibble acquired land in Cottage Grove Township. Given his brief ownership of the property, the land may have been a speculative investment.[13] The next owner of the property, Louis (or Lewis) Dibble, is listed in the 1857 Minnesota Territorial Census as a resident of Point Douglas. By 1860, Louis was living in Cottage Grove and considered farming his primary occupation. As Louis was also from New York, he may have been related to William. At the time of the 1860 census, Louis and his wife Hannah had five children.[14] Little is known about Peter Pfiefer; research did not reveal any definitive information about this individual.

The next owner of the property, William Cowan, appears to have acquired the land from Peter Pfiefer in 1873. By 1886, a plat map of Cottage Grove indicates that Cowan owned 247 acres in Section 30, including the 2.75 acres that now comprise the 10301 Grey Cloud Trail property. Cowan is listed as a resident of Cottage Grove in both the 1875 and 1885 Minnesota Territorial Censuses. Cowan, who was 56 years old at the time of the 1875 census, was a native of Scotland. His wife Harriet (45 years old in 1875) was born in Canada, while two younger household members – Hannah (18) and Harriet (14) – were also born in Scotland. By 1885, three individuals named John (28), Anna (26), and Harriet (23) were residing with William and Harriet.[15]

The 1886 plat map of Cottage Grove shows a structure on Cowan's property in the location of the current house, just to the east of the road that is now Grey Cloud Trail and west of the tracks of the CB & Q Railroad (see Figure 4). Possibly, this structure is the existing two-and-one-half-story, gable-roofed, limestone house. No historic photographs of the property have been uncovered. Based on its existing appearance, the house was not designed as high-style architecture. Rather, like most of the pre-1940 houses in Cottage Grove, it is best classified as "folk" or "vernacular"

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[13] *Minnesota State Population Census Schedules, 1875*, Washington County, Denmark Township, family 117, accessed via Ancestry.com; United States Bureau of the Census, *Tenth Census of the United States,* Minnesota, Washington County, Denmark Township, dwelling no. 213; "William B. Dibble," Minnesota, U.S., Marriages Index, 1849-1950, ancestry.com; "William Burris Dibble," Find a Grave Index, 1600s-Current, Ancestry.com; "Marine Mills," Minnesota Historical Society, accessed November 18, 2021, https://www.mnhs.org/media/kits/marinemill; Neill, *A History of Washington County and the St. Croix Valley*, 193, 260, 326, 354 – 361, 477.

[14] Vogel, *The New England of the West*, 54; United States Bureau of the Census, *Eighth Census of the United States,* 1860, Washington County, Cottage Grove, dwelling no. 1376, Ancestry.com; *Minnesota Territorial Census, 1857,* Washington County, Cottage Grove, dwelling no. 634, Ancestry.com.

[15] Tract pages for northeast quarter of Section 30, Township 27, Range 21, on file at the Washington County Property Records and Taxpayer Services Department, Stillwater, Minnesota; *Minnesota State Population Census Schedules, 1865-1905*, 1875*,* Washington County, Cottage Grove, family no. 124, Ancestry.com; *Minnesota State Population Census Schedules, 1865-1905*, 1885*,* Minnesota, Washington County, Cottage Grove, family no. 91, Ancestry.com; Warner and Foote*, Map of Ramsey and Washington Counties: with Adjacent Portions of Anoka, Dakota & Hennepin counties, Minnesota, and Parts of St. Croix & Pierce Counties, Minnesota* (Minneapolis, MN: Warner and Foote, 1886), Sheet 7.

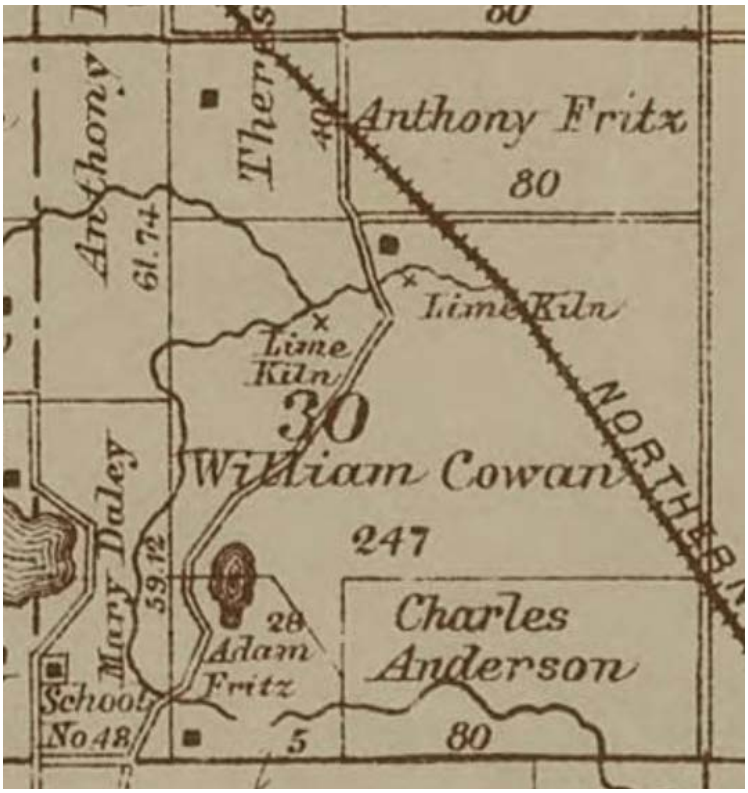

***Figure 4**. 1886 plat map of the Cottage Grove area showing Section 30. Map courtesy of the University of Minnesota's UMedia.*

architecture. The house's limestone walls are now covered with stucco (installed in the 1960s or 1970s) but were originally exposed. This limestone may have been obtained from one of several local limestone quarries historically present within Cottage Grove. Vogel notes that the house at 10301 Grey Cloud Trail is one of only a few buildings in Cottage Grove constructed completely of this material and the only one of the city's 140 houses built before 1940 that is not constructed of wood.[16] Though not an example of high-style architecture, the building's front gabled form reflects a common subtype of the Greek Revival style, which was popular in the United States from about 1825 until about 1860. According to a description of the house in a 1990 architectural-history survey, it formerly had a front entry portico, another feature of Greek Revival houses.[17] Like the house, the existing barn cannot be dated with certainty. However, a 1990 study of barns in Cottage Grove found that the oldest are generally simple gable-roofed structures like this one, suggesting that the barn was likely constructed in the nineteenth century.[18]

By 1901, William Cowan had sold much of his land, retaining only 19.25 acres to the west of modern-day Grey Cloud Trail. The new owner of most of Cowan's former land (200.95 acres) was

[16] Vogel, *Preliminary Inventory of Pre-1940 Houses,* 181; Robert Vogel, "Minnesota Historic Properties Inventory Form," WA-CGC-034, Okey House, 1984, on file at the Minnesota State Historic Preservation Office, St. Paul, Minnesota; Vogel, *The New England of the West,* 53.

[17] Vogel, *Preliminary Inventory of Pre-1940 Houses,* 180, 183; Virginia McAlester, *A Field Guide to American Houses,* rev. ed (New York: Alfred A. Knopf, 2014), 134 – 136.

[18] Larry Klueh, "Barns in the City: Agrarian Landmarks in Cottage Grove," *Perspectives in Cottage Grove History*, No. 4 (August 1989), 6; Vogel, *Preliminary Inventory of Pre-1940 Houses,* 11 – 12.

listed as the Security Trust Company (see Figure 5).[19] Little is known about this firm. Preliminary newspaper research suggests that it was based in St. Paul and specialized in backing mortgages and bonds.[20]

The next available plat map of Cottage Grove, dated 1912, shows Dorothea Fritz as the owner of these 200.95 acres (see Figure 6). Fritz, who immigrated from Germany in 1888, was married to Minnesota native Herbert Casper Fritz. According to the 1910 federal census, farming was Herbert's primary occupation. Though the 1912 plat map does not show the location of residential structures, census information indicates that the Fritz family owned a mortgaged farm, indicating that there were still buildings on the Fritz property at this date. At the time of the 1910 census, the family had a three-year-old daughter Dorothea, a two-year-old son Anthony, and an infant named Herbert. A hired laborer, Lanis Perow, also lived with the family. Another daughter, Clara, was born to the couple in 1912.[21]

The elder Dorothea died in 1916, and her property was distributed to her children and husband. By 1926, 76.95 acres surrounding the 10301 Grey Cloud Trail property were owned by "Dorothea Fritz et. al.," presumably, the younger Dorothea and her siblings (see Figure 7).[22]

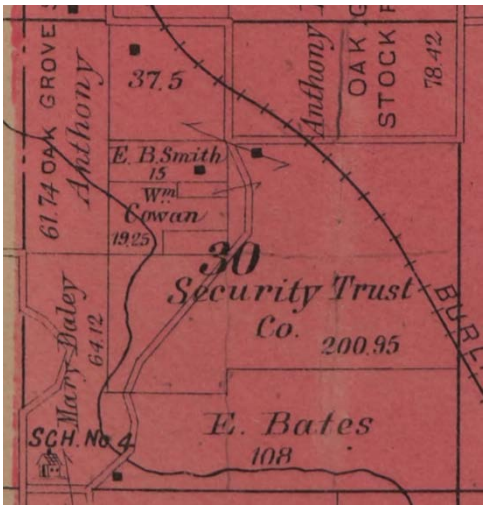

***Figure 5**. 1901 plat map of Cottage Grove showing Section 30. Map courtesy of Minnesota Digital Library.*

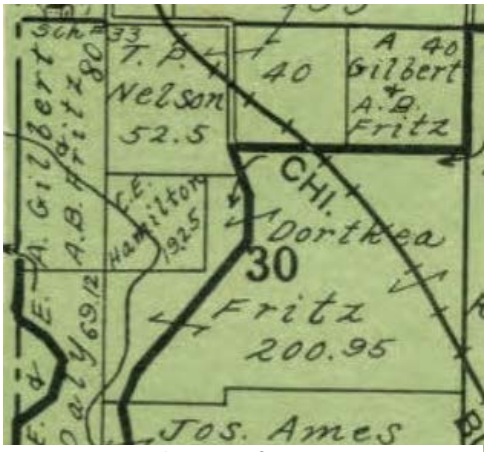

***Figure 6**. 1912 plat map of Cottage Grove showing Section 30. Map courtesy of Minnesota Digital Library.*

[19] Northwest Publishing Company, *Plat Book of Washington County, Minnesota* (Minneapolis, MN: Northwest Publishing Company, 1901), Sheet 41.

[20] See for example "Notice of Mortgage Sale," *St. Paul Globe,* January 18, 1885, p. 7; "Money Has Been Paid for Bonds," *Bemidji Daily Pioneer,* June 24, 1909, p. 1.

[21] *The Farmer, The Farmer's Atlas and Directory of Washington County, Minnesota* (St. Paul, MN: Webb Publishing Company, 1912), Sheet 27; United States Bureau of the Census*, Thirteenth Census of the United States, 1910,* Minnesota, Washington County, Cottage Grove Township, District 0166, Sheet 7B, accessed via Ancestry.com; United States Bureau of the Census*, Fourteenth Census of the United States, 1920,* Minnesota, Washington County, Cottage Grove Township, District 0169, Sheet 6A, accessed via Ancestry.com

[22] Samuel Larson and George Tibbets, "Inventory and Appraisement in the Matter of the Estate of Dorothea Fritz," February 20, 1917, and "Final Decree of Distribution in the Matter of the Estate of Dorothea Fritz," June 18, 1917, Probate Case File No. 4358-4395, 1916 – 1917, accessed via Ancestry.com; Hudson Map Company, 1926 Plat Map of Washington County; "Dorothea Fritz," Find a Grave Index, 1600s-Current, Ancestry.com.

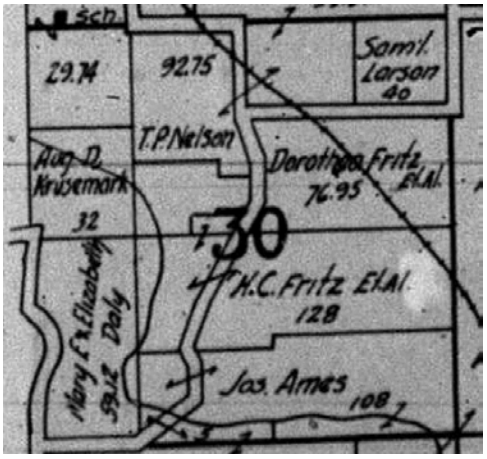

***Figure 7**. 1926 plat map of Cottage Grove showing Section 30. Map courtesy of the University of Minnesota's John R. Borchert Map Library.*

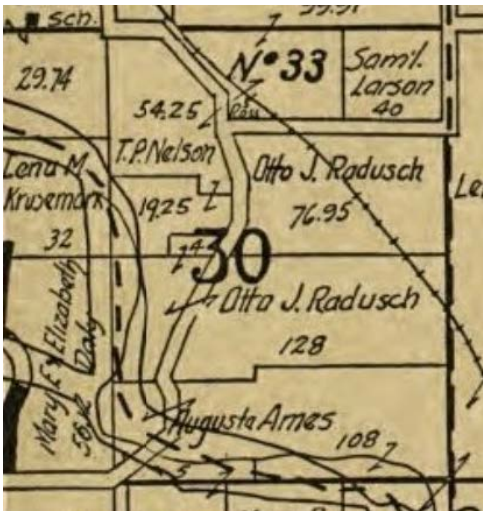

***Figure 8.** 1938 plat map of Cottage Grove showing Section 30. Map courtesy of the Library of Congress.*

By 1938, these 76.95 acres had passed to Otto J. Radusch (see Figure 8). Otto is not listed in the 1940 census for Washington County, so little is known about his background. According to a 1990 historical architecture survey of the property, the house's one-story addition dates to 1942, so it is possible that this addition was constructed by Radusch.[23] The next available plat map, dated 1949, shows Anthony and Mary Kulvich as the owners. By 1956, the property had passed to Mary O'Boyle (see Figure 10). Little information could be uncovered about either of these occupants.[24]

During the mid-twentieth century, Section 30 did not experience immediate subdivision and residential development as did some other areas of Cottage Grove. A 1964 aerial photograph indicates that this portion of Cottage Grove was still relatively undeveloped at that time (see Figure 9). By 1969, the five acres surrounding the Cowan House had been parceled off from the rest of the surrounding land and were owned by an individual identified on plat maps only as "E.B." Changes made to the house in the 1960s or 1970s include the addition of shed-roofed dormers to the north and south elevations and the addition of stucco to the exterior. In 1972, 10301 Grey Cloud Trail was included (apparently for the first time) in the South and West St. Paul city directory; its owner was listed as Mary Okey. From 1973 until at least the mid-1980s, much of the surrounding land around the subject property was owned by Mary O'Boyle. Some or all of this land was sold in the early 1990s to develop the existing golf course.[25] By 1995, 10301 Grey Cloud consisted of the 2.75-

[23] Vogel, *The New England of the West,* 53.

[24] Hudson Map Company, *Plat Book of Washington County, Minnesota* (Minneapolis, MN: Hudson Map Company, 1938), 19; Atlas Company, *Plat Book of Washington County, Minnesota* (St. Paul, MN: Atlas Map Company, c. 1949); Thomas Nelson Company, *Atlas of Washington County, Minnesota,* 1956, "Cottage Grove," https://www.co.washington.mn.us/DocumentCenter/View/1912/1956_platbook.

[25] Vogel, *Preliminary Inventory of Pre-1940 Houses,* 92; "Village of Cottage Grove," map, Rockford Map Publishers, 1969, on file at the John R. Borchert Map Library; "Village of Cottage Grove," map, Rockford Map Publishers, 1973, on file at the John R. Borchert Map Library; "Village of Cottage Grove," map, Rockford Map Publishers, 1976, on file at the John R. Borchert Map Library; "East Part of Village of Cottage Grove," map, Rockford Map Publishers, 1982, on file at the John R. Borchert Map Library; "East Part of Village of Cottage Grove," map, Rockford Map Publishers,

acre parcel that it is today. Following Mary Okey's death in c. 1995, the property was owned by the Thompson family and then Doebler Real Estate before it was purchased in 2019 by the adjacent golf course.[26]

Figure 9. *1964 aerial photograph of the southwest corner of Cottage Grove. Photograph courtesy of the University of Minnesota's John R. Borchert Map Library.*

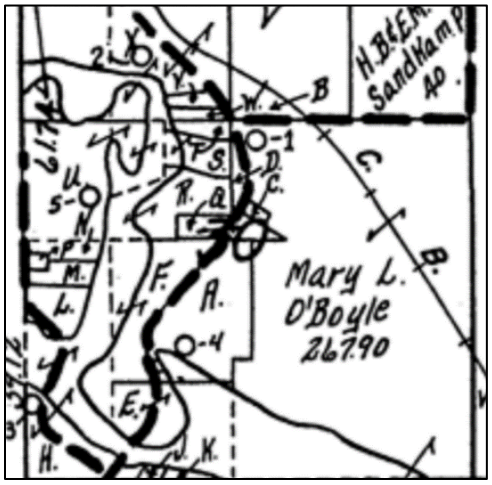

Figure 10. *1956 plat map of Cottage Grove showing Section 30. Map courtesy of the University of Minnesota's John R. Borchert Map Library.*

1986, on file at the John R. Borchert Map Library; personal communication, Mike Mrosla, November 12, 2021; R. L. Polk & Co., *Polk's South St. Paul and West St. Paul City Directory* (St. Paul, MN: R. L. Polk & Co., 1972), 177.

[26] Quit Claim Deed, November 15, 2019, Document No. 4218540, on file at Washington County Property Records and Taxpayer Services; Limited Warranty, April 20, 2005, Document No. 3517977, on file at Washington County Property Records and Taxpayer Services; Quit Claim Deed, August 9, 1999, Document No. 3063839, on file at Washington County Property Records and Taxpayer Services; Personal Representative Deed, June 28, 1995, Document No. 849102, on file at Washington County Property Records and Taxpayer Services.

CITY OF COTTAGE GROVE LOCAL DESIGNATION

PAST DETERMINATIONS OF HISTORIC SIGNIFICANCE

10301 Grey Cloud Trail is not currently locally designated by the City of Cottage Grove, nor is it listed on the National Register of Historic Places (NRHP).

In 1990, a history-architectural survey noted that the property "could probably be nominated to the City Register of Historic Sites and Landmarks solely on the basis of its architectural significance." However, the survey also recommended additional research "to firmly establish its historical associations."[27]

DESIGNATION CRITERIA

The City of Cottage Grove defines historic resources as properties that meet any one of five criteria as outlined in Chapter 9 of the City Code of Cottage Grove, Minnesota. The criteria that must be considered when determining the historic significance of a property include:

1. Its character, interest, or value as part of the history or cultural heritage of the city, the state or the United States;

2. Its association with persons or events that have made a significant contribution to the cultural heritage of the city;

3. Its potential to yield information important in history or prehistory;

4. Its embodiment of distinguishing characteristics of architectural type or style, or elements of design, detail materials or craftsmanship; and

5. Its unique location or singular physical appearance representing an established or familiar visual feature of a neighborhood or community of the City.

Our research on the history of the property suggests that the property may be historically significant under **Criterion 1** for its association with Cottage Grove's history as an agricultural community and under **Criterion 4** as a unique local example of limestone construction. Our research did not uncover any associations with significant persons or events (Criterion 2) or suggest that the property represents an established and familiar feature of its neighborhood (Criterion 5). No information was uncovered to suggest that the property was formerly used as a hotel. It is unknown if the property meets Criterion 3 as it has not been evaluated for archaeological significance.

[27] Vogel, *New England of the West,* 53 – 54.

INTEGRITY

In order to be locally designated, a property must not only meet criteria for historic significance but also retain integrity. In other words, it must retain enough of its physical features and materials to convey its historic significance. As Chapter 9 of the City Code of Cottage Grove does not provide criteria for evaluating integrity, we have considered the integrity of the subject property using the National Park Service (NPS) definition of integrity. According to the National Register Bulletin *How to Apply the National Register Criteria for Evaluation,*[28] a property's integrity is recognized through seven aspects or qualities:

1) Location
2) Setting
3) Design
4) Workmanship
5) Materials
6) Feeling
7) Association

Research and on-site investigation suggest that the property has experienced some significant alterations since its original construction. There have been some changes to the property's setting, most noticeably the development of the golf course to the southeast. Alterations to the house's original materials, design, and workmanship include a one-story addition added around 1942, roof dormers added in the 1960s, stucco cladding applied to the exterior in the mid-1960s or early 1970s, and roofing replaced with asphalt shingles at an unknown date. Additionally, it is likely the house originally had an entrance portico later replaced by a porch, which has since been removed. Though in poor condition, the associated barn appears to retain much of its original materials, design, and workmanship.

The property appears to meet local Criterion 1 and Criterion 4 for historic significance. However, alternations to the property have impacted integrity. It may no longer be eligible for local designation due to the loss of integrity.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP) DESIGNATION

NRHP listing and local designation are two separate processes and designations. NRHP listing is overseen by the NPS and must meet NPS requirements for historical significance and integrity. The NPS Criteria for Evaluation define historically significant properties as properties:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

[28] National Park Service, *How to Apply the National Register Criteria for Evaluation,* rev. ed. (Washington, D.C.: 1995), 44, https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.[29]

Significant changes to the house since its construction might pose a challenge to listing the property on the NRHP. Additionally, more information is needed to determine if the property has historical significance under NPS Criteria for Evaluation. This includes:

- Additional research to compile a complete list of all building owners and occupants
- Comparison against similar properties in Cottage Grove to determine if this property is unique and therefore more likely to be significant
- Determination of a period of significance for the property (the time period during which the property obtained historical significance)

Additional research is needed to determine if the property has historical significance as defined by the NPS Criteria for Evaluation. Alterations to the property have impacted integrity, and it may not be eligible for the NRHP due to a loss of integrity.

[29] National Park Service, *How to Apply the National Register Criteria for Evaluation,* rev. ed. (Washington, D.C.: 1995), 2, https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

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APPENDIX A: CURRENT PHOTOS

House at 10301 Grey Cloud Trail. West elevation, looking east. November 2021. Courtesy of the City of Cottage Grove.

House at 10301 Grey Cloud Trail. West elevation, looking northeast. November 2021. Courtesy of the City of Cottage Grove.

House at 10301 Grey Cloud Trail. South elevation, looking northeast. November 2021. Courtesy of the City of Cottage Grove.

House at 10301 Grey Cloud Trail. East elevation, looking northwest. November 2021. Courtesy of the City of Cottage Grove.

House at 10301 Grey Cloud Trail. North elevation, looking southeast. November 2021. Courtesy of the City of Cottage Grove.

Barn at 10301 Grey Cloud Trail. November 2021. Courtesy of the City of Cottage Grove.

CITY OF COTTAGE GROVE, MINNESOTA
CITY COUNCIL
RESOLUTION 2022-015

A RESOLUTION APPROVING THE FORMER MISSISSIPPI DUNES GOLF COURSE ENVIRONMNENTAL ASSESSMENT WORKSHEET (EAW) FINDING NO NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

WHEREAS, the preparation of an EAW for the Former Mississippi Dunes Golf Course was mandatory; and

WHEREAS, the EAW was prepared in compliance with the procedures of the Minnesota Environmental Policy Act and Minnesota Rules, Parts 4410.0200 to 4410.7500, and

WHEREAS, notice of availability of the EAW was published in the EQB Monitor and the thirty-day comment period ended on January 6, 2022, and during such period comments were received from ten agencies and fourteen citizens; and

WHEREAS, the City Council is required by law to make a finding on the adequacy of the EAW and to determine whether an Environmental Impact Statement (EIS) should be prepared; and

WHEREAS, the City Council met at a regularly scheduled meeting on February 2, 2022, and considered the EAW, the reports of its staff, and the comments received from the parties as noted above; AND

WHEREAS, the EAW satisfactorily addressed all of the issues for which existing information could have been reasonably obtained.

NOW, THEREFORE BE IT RESOLVED, the City Council of the City of Cottage Grove, Washington County, Minnesota, makes the following findings with regard to the environmental impact of the proposed Mississippi Landing development:

1. The proposed Mississippi Landing Residential Development Project is consistent with the City's adopted Comprehensive Plan.

2. The Environmental Assessment Worksheet (EAW) and related documentation for the Mississippi Landing Residential Development Project were prepared in compliance with the procedures of the Minnesota Environmental Policy Act and Minnesota Rules 4410.1000 to 4410.1700. All requirements for environmental review of the proposed project have been met.

3. The EAW and the pertinent development processes related to the project have generated information which is adequate to determine whether the project has the potential for significant environmental effects.

4. Based on criteria in Minnesota Rules, part 4410.1700, the project does not have the potential for significant environmental effects.

5. An Environmental Impact Statement (EIS) is not required for the proposed Mississippi Landing Residential Development Project. The Responsible Government Unit

(RGU) makes a Negative Declaration and does not require the preparation of an EIS for the Mississippi Landing Residential Development Project.

BE IT FURTHER RESOLVED that based on the findings above, the City Council has determined that the Mississippi Landing Residential Development Project does not have the potential for significant environmental effects and that preparation of an EIS is not mandated in this instance.

BE IT FURTHER RESOLVED that nothing in this determination that the EAW is adequate should be interpreted in any way to suggest that the City has approved of the proposed Project.

BE IT FURTHER RESOLVED, the City Council hereby makes a "Negative Declaration," an EIS is not required, and the City of Cottage Grove is directed to maintain a Record of Decision including the Response to Comments on the EAW and to notify in writing the project proposer and the EQB.

Passed this 2nd day of February 2022.

Myron Bailey, Mayor

Attest:

Joe Fischbach, City Clerk

DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

January 16, 2024
Correspondence # MCE 2023-00757

Melissa Barrett
Kjolhaug Environmental Services Company

RE: Natural Heritage Review of the proposed **Mississippi Landing**,
T27N R21W Sections 30 and 31; Washington County

Dear Melissa Barrett,

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request and the Former Mississippi Dunes Golf Course Environmental Assessment Worksheet (EAW) published in November 2021 (available online from the City of Cottage Grove at https://www.cottagegrovemn.gov/587/Mississippi-Dunes), **I do not believe the proposed project will negatively affect any known occurrences of rare features**. Below is a list of rare features addressed in the previous Natural Heritage Review (ERDB 20220044 from November 19, 2021) coupled with agreed upon project avoidance measures:

Ecologically Significant Areas

- The Minnesota Biological Survey (MBS) had identified several Sites of Biodiversity Significance within the vicinity of the proposed project before the development of the area into Mississippi Dunes Golf Course. As a result, many of these MBS Sites were altered.
    - **Grey Cloud Dunes East** (*Outstanding* MBS Site), located adjacent to the proposed project and within **Grey Cloud Dunes Scientific and Natural Area** (SNA), contains the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state.
    - **Cottage Grove 29** (*Moderate* MBS Site), located within both the proposed project area and within **Grey Cloud Dunes SNA**, contained occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong

potential for recovery. As stated in the Former Mississippi Dunes Golf Course EAW, the proposed project has planned to sell 12 acres of **Cottage Grove 29** to MnDNR to be incorporated as part of **Grey Cloud Dunes SNA**.

- **Cottage Grove 30 Southeast** (*Moderate* MBS Site), located within the proposed project area, contained occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery. As stated in the Former Mississippi Dunes Golf Course EAW, the proposed project has planned for the protection of the full Mississippi River frontage by publicly dedicating these areas to the City of Cottage Grove, including a portion of **Cottage Grove 30 Southeast.**

These MBS Sites contain rare MN DNR Native Plant Communities, some of which had been altered by the golf course. A rare plant survey, finalized in August 2022 by Midwest Natural Resources, reported on the current condition of the native plant communities in the proposed project area. They identified Dry Barrens Prairie (Southern) (UPs13a), which is considered **critically imperiled** (S1) within Minnesota, located within **Cottage Grove 29**. They identified Sugar Maple - Basswood - (Bitternut Hickory) Forest (MHs39a), which is considered **imperiled (S2)** within Minnesota, located within **Cottage Grove 30 Southeast**.

- MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be viewed using the Explore page in Minnesota Conservation Explorer or their GIS shapefiles can be downloaded from the MN Geospatial Commons. Please contact the NH Review Team if you need assistance accessing the data. Reference the MBS Site Biodiversity Significance and Native Plant Community websites for information on interpreting the data. To receive a list of MBS Sites of Biodiversity Significance and DNR Native Plant Communities in the vicinity of your project, create a Conservation Planning Report using the Explore page in Minnesota Conservation Explorer.

State-listed Species

- Several state-listed threatened and endangered mussels and fish have been documented in the Mississippi River in the vicinity of the proposed project. These species are particularly vulnerable to deterioration in water quality, especially increased siltation. As such, the project should not be allowed to negatively affect the water quality of the river. It would be beneficial for a buffer of vegetation to occur between the development and the river. It is important that effective erosion prevention and sediment control practices are implemented and maintained for the duration of the project and incorporated into any stormwater management plan. As stated in the Former Mississippi Dunes Golf Course EAW, the proposed project has planned for the protection of the full Mississippi River frontage through a connected network of park and open space by publicly dedicating these areas to the City of Cottage Grove (EAW Section 13.d.). Additionally, erosion prevention and sediment control actions will follow recommendations set by the South

Washington Watershed District (SWWD), City of Cottage Grove, and Minnesota Pollution Control Agency (MPCA) (EAW Section 11.b.ii.).

- The loggerhead shrike (*Lanius ludovicianus*) and Henslow's sparrow (*Centronyx henslowii*), both state-listed endangered birds, and Bell's vireo (*Vireo bellii*) and lark sparrow (*Chondestes grammacus*), both state-listed bird species of special concern, have been documented in the vicinity of the proposed project. These bird species nest in a variety of areas including shrubs, trees, and the ground. Given the potential for these species to be found in the vicinity of the project, disturbance to undisturbed grassland areas and tree/shrub removal must be avoided from April through August 15th to avoid disturbance of nesting birds. As stated in correspondence with MnDNR Endangered Species Review Coordinator Lisa Joyal in March 2022, vegetation clearing for the proposed project will occur outside of the April 1 – August 15 time period.

- Louisiana broomrape (*Orobanche ludoviciana*) and seaside three-awn (*Aristida tuberculosa*), both state-listed threatened plant species, and purple sandgrass (*Triplasis purpurea* var. *purpurea*) and Hill's thistle (*Cirsium pumilum* var. *hilli*), both state-listed plant species of special concern, have been documented in the vicinity of the proposed project. These species are found primarily in prairie habitats with sandy soils and dunes. As stated in the Former Mississippi Dunes Golf Course EAW, the proposed project has planned to sell the area classified as Dry Barrens Prairie (Southern) (Ups13a) to MnDNR to be incorporated as part of the Grey Cloud Dunes SNA.

- North American racer (*Coluber constrictor*), a state-listed species of special concern, has been documented in the vicinity of the proposed project and may be encountered on site. These snakes prefer grassy areas with sandy and gravel soils. Given the presence of these rare snakes, the DNR recommends that the use of erosion control mesh, if any, be limited to wildlife-friendly materials. As stated in the Former Mississippi Dunes Golf Course EAW, non-plastic biodegradable netting will be used for erosion control (EAW Section 13.d.).

- The Leonard's skipper (*Hesperia leonardus leonardus*) and regal fritillary (*Argynnis idalia*), both state-listed butterfly species of special concern, have been documented within the vicinity of the project. These species populations have declined historically due to the widespread conversion of native prairie for agriculture and other uses. Less than 1% of Minnesota's native prairie remains and the remaining prairie mostly consists of widely scattered small fragments surrounded by agriculture and development. To protect these prairie obligate butterfly species, avoiding disturbance to native prairie is strongly recommended. As stated in the Former Mississippi Dunes Golf Course EAW, the proposed project has planned to sell the area classified as Dry Barrens Prairie (Southern) (Ups13a) to MnDNR to be incorporated as part of the Grey Cloud SNA. Additionally, vegetation clearing will occur prior to the active season for listed butterflies, BWSR (example) or MnDOT native seed mix will be utilized for reseeding disturbed

areas, and mitigation practices will be implemented to prevent the introduction and spread of invasive species (EAW Sections 13.c. and 13.d.).

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all seven of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, the DNR recommends that tree removal be avoided from June 1 through August 15. As stated in correspondence with MnDNR Endangered Species Review Coordinator Lisa Joyal in March 2022, vegetation clearing for the proposed project will occur outside of the April 1 – August 15 time period.

- Please visit the DNR Rare Species Guide for more information on the habitat use of these species and recommended measures to avoid or minimize impacts.

Federally Protected Species

- The area of interest overlaps with a U.S Fish and Wildlife Service (USFWS) Rusty Patched Bumble Bee High Potential Zone. The rusty patched bumble bee *(Bombus affinis)* is federally listed as endangered and is likely to be present in suitable habitat within High Potential Zones. From April through October this species uses underground nests in upland grasslands, shrublands, and forest edges, and forages where nectar and pollen are available. From October through April the species overwinters under tree litter in upland forests and woodlands. The rusty patched bumble bee may be impacted by a variety of land management activities including, but not limited to, prescribed fire, tree-removal, haying, grazing, herbicide use, pesticide use, land-clearing, soil disturbance or compaction, or use of non-native bees. If applicable, the DNR recommends reseeding disturbed soils with native species of grasses and forbs using BWSR Seed Mixes or MnDOT Seed Mixes.

  To ensure compliance with federal law, please conduct a federal regulatory review using the U.S. Fish and Wildlife Service's online Information for Planning and Consultation (IPaC) tool. Please note that all projects, regardless of whether there is a federal nexus, are subject to federal take prohibitions. The IPaC review will determine if prohibited take is likely to occur and, if not, will generate an automated letter. The USFWS RPBB guidance provides guidance on avoiding impacts to rusty patched bumble bee and a key for determining if actions are likely to affect the species; the determination key can be found in the appendix.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, **the results of this Natural Heritage Review are valid for one year**; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the Natural Heritage Review website for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Molly Barrett

Molly Barrett
Natural Heritage Review Specialist
Molly.Barrett@state.mn.us

Cc: Melissa Collins, Regional Environmental Assessment Ecologist, Region 3 (Central)

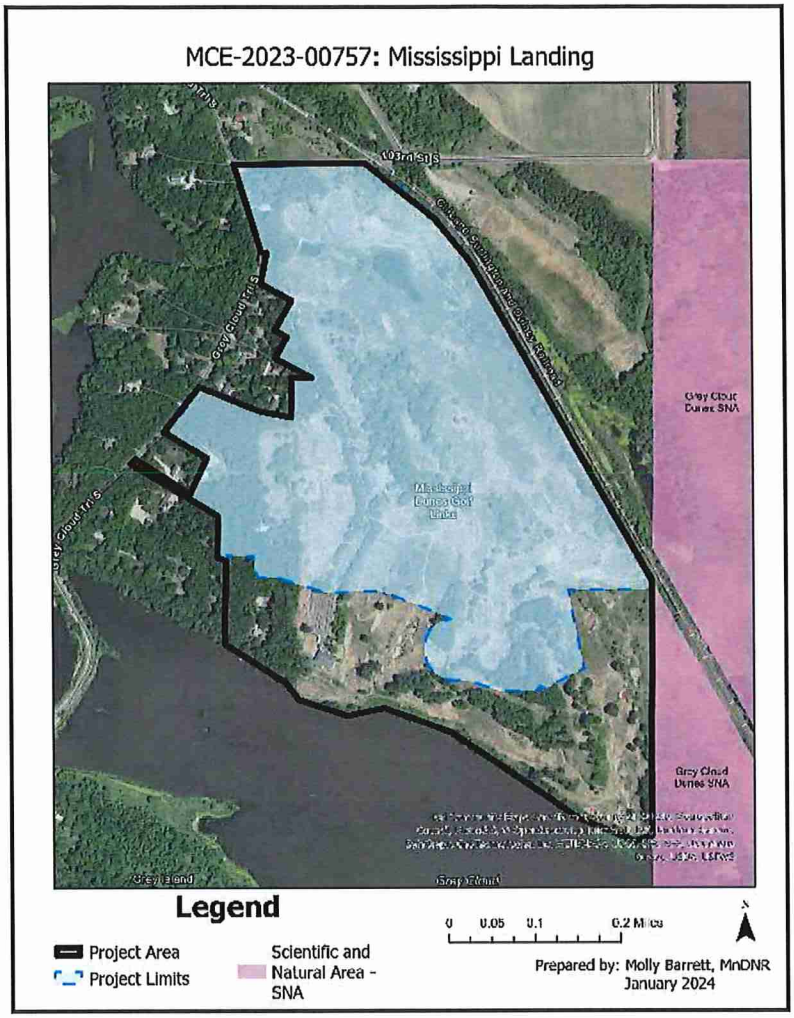

Figure 1 Map of the proposed project. The property is outlined in black. The light blue "Project Limits" area contains the residential development. The remaining area, as stated in the Former Mississippi Dunes Golf Course EAW, will remain as open space (EAW Section 13.d.).

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Habitat Assessment for Rusty Patched Bumble Bee at the Mississippi Landing Project Area
March 2, 2022

Introduction

The 164-acre Mississippi Landing Project Area (MLPA) is in Washington County, MN (Figure 1). Approximately 89% of the MLPA was used as the Dunes Golf Course, which operated for several decades closing in 2017 (EAW 2021). Development of the golf course required mass grading and soil disturbance to convert the site from its historical agricultural usage into a manicured landscape of greens, bunkers, fairways, and infrastructure. Mounds were built as part of the golf course landscape, as well as an asphalt cart path going throughout much of the course, a clubhouse, and other buildings. Within the former golf course footprint and extending towards the railroad embankment is an approximate 10-acre reed canary grass (*Phalaris arundinacea*) dominated wetland and open water pond complex. Most trees within the graded footprint of the golf course appear to have been planted, but some non-graded areas have trees that pre-date the golf course.

The remaining 11% of the MLPA has or is being used for rural residential use or are considered undeveloped or vacant (EAW 2021). This 11% comprises single-family residential uses or other small-scale buildings, lawns, and pockets of woodlands. The MLPA is bordered to the west by rural residential lots that are accessed from Grey Cloud Trail South. To the north of the site is 103rd Street South, and to the east is the BNSF railroad line and land permanently protected as the Grey Cloud Dunes Scientific and Natural Area (SNA), which is owned by the Minnesota Department of Natural Resources (MNDNR) and is an area with known high-quality plant communities, uncommon wildlife, and rare natural features. The southern border of the site is a back channel of the Mississippi River known as Mooers Lake.

Rusty Patched Bumble Bee

The MLPA is located entirely within a High Potential Zone of the Rusty-patched Bumble Bee (RPBB), https://www.fws.gov/midwest/endangered/insects/rpbb/rpbbmap.html). The RPBB (*Bombus affinis*) prefers grasslands and tallgrass prairies with pollen from flowers and underground nesting sites in abandoned rodent cavities or clumps of grasses and overwintering sites for hibernating queens in undisturbed soils. This bumble bee gathers pollen and nectar from a variety of flowering plants. The RPBB emerges early in spring and is one of the last species to go into hibernation. It needs a constant supply and diversity of flowers blooming throughout the colony's long life, April through September.

The RPBB is likely vulnerable to pesticides used widely on farms and in cities, which likely have both lethal and sublethal toxic effects (https://www.fws.gov/midwest/endangered/insects/rpbb/factsheetrpbb.html). Bumble bees can absorb toxins directly through their exoskeleton and through contaminated nectar and pollen. Because the RPBB nests in the ground, it may be susceptible to pesticides that persist in agricultural soils, lawns, and turf.

Habitat Assessment Methodology

A RPBB habitat assessment of the 164-acre MLPA occurred on January 13, 2022. There was approximately three inches of snow on the ground, but many herbaceous plant species were still recognizable by their dead standing stalks and patchy snow cover. This habitat assessment is based on what was visible during our winter field visit, describes the current habitats on the MLPA, and presents the likelihood of suitable habitat for the RPBB.

Two RES ecologists completed a one-day site visit to evaluate exiting conditions of the former Mississippi Dunes golf course and surrounding lands that make up the 164-acre MLPA. Wetland A (Figure 1), peripheral non-golf course woodland habitats, and the former golf course greens, fairways, roughs, and woodlands were walked.

Habitats were described and identifiable plant species noted. Habitats are described based on the dominant vegetation identified and on the past use of the site. For this report, areas were arbitrarily divided into several broad location types with some sub areas described (Figure 1). Since most of the MLPA is a former golf course, this assessment was not

intended to divide the MLPA into discreet land cover types. To the extent possible, due to some snow cover and winter conditions, we have identified areas that may provide suitable RPBB habitat, based on vegetative structure and species identified.

Having a suitable habitat does not indicate that the species is present. In this assessment, the suitability of a given habitat to support RPBB has been ranked as low, moderate, and high. **Low** suitability habitats are those areas where, based on incompatible past land uses, soil disturbance, and/or existing conditions, there is little to no probability that the habitat supports RPBB. **Moderate** suitability habitats are those areas that contain some key plant species used by RPBB for foraging, have proper plant structure for nesting/overwintering, the RPBB has been documented as occurring on site or nearby, and the area has experienced limited disturbance. **High** suitability habitats are those areas where a native plant community (e.g., native prairie remnant) is found, there is an abundance of diverse nectar species, there are available nesting and overwintering sites, there has been no or minimal past disturbance, and/or the RPBB has been observed on the site or nearby.

Wetland A

Wetland A, based on the habitat assessment description below, does not have sufficient nectar sources from early blooming plants as well as a low diversity and quantity of nectar/foraging sources throughout the growing season to support the RPBB. There are few RPBB nesting and overwintering habitat opportunities in the wetland. Therefore, Wetland A represents a low suitability habitat for RPBB.

The 10-acre wetland and pond complex within the MLPA (Figure 1, A) is dominated by the non-native aggressive reed canary grass. Native species such as blue vervain (*Verbena hastata*), sneezeweed *(Helenium autumnale*), marsh milkweed (*Asclepias incarnata*), common milkweed (*Asclepias syriaca*), stinging nettle (*Urtica dioica*), and cattail (*Typha* sp.). Sporadically seen were shrubby species of dogwoods (*Cornus* spp.) and trees of black or crack willow (*Salix nigra, S.* x *fragilis*). The wetland contains open water and is fed by springs originating from under the former golf course and outlets westerly though a wooded ravine. Water cress (*Nasturtium officinale*) grows in the small rivulets flowing in a sinuous pattern that eventually enters a ponded area. Occasional other native plant species observed were sensitive fern (*Onoclea sensibilis*), smartweeds (*Polygonum* spp.), dark green bulrush (*Scirpus atrovirens*), common elderberry (*Sambucus canadensis*), sedges (*Carex* spp.), wild grape (*Vitis riparia*), boneset (*Eupatorium perfoliatum*) and beggarticks (*Bidens* sp.). Patches of shrubs along the southwestern edge of the southeastern portion of the wetland complex contain prickly ash (*Zanthoxylum americana*), box elder (*Acer negundo*), red-osier dogwood (*Cornus sericea*), non-native common buckthorn (*Rhamnus cathartica*), and non-native invasive honeysuckles (*Lonicera* spp.). Given this area's predominant wetland conditions and limited floral diversity throughout the growing season, Wetland A has low RPBB suitable habitat.

Closed Canopy Wooded Areas

The closed canopy woodlands as described below are adjacent to the old golf course (B1-B4 on Figure 1) and appear to lack RPBB overwintering, nesting, and suitable spring flora components. Therefore, the site's closed canopy woodlands have low RPBB suitable habitat.

The closed canopy woodlands, which are mostly single-family parcels, border the western and far northern edges of the MLPA (Figure 1, B.1-B.4). Single family residences are still present in some of these woodlands. The woodlands vary from disturbed deciduous woodland with scattered evergreens to areas of closed canopy woodland interspersed with old fields. The woodland subcanopy is dominated by shrubs, mostly invasive honeysuckles. Other native plant species observed are frost aster (*Symphyotrichum pilosum*), black raspberry (*Rubus occidentalis*), clones of staghorn sumac (*Rhus typhina*), hackberry (*Celtis occidentalis*), red and/or scotch pine (*Pinus resinosa or P. sylvestris*), spruce (*Picea* sp.) box elder, white snake root (*Ageratina altissima*), gooseberry (*Ribes* sp.), black walnut (*Juglans nigra*), basswood (*Tilia americana*), and sugar maple (*Acer saccharum*). Non-natives include garlics mustard (*Alliaria petiolata*), motherwort (*Leonurus cardiaca*), thistles (*Cirsium* spp.), and orchard grass (*Dactylis glomerata*).

Several scattered large bur oaks (*Quercus macrocarpa*, estimated at 18-22" DBH, diameter at breast height) are found in these woodlands. There are also patches of dense eastern red cedar (*Juniperus virginiana*) and other evergreens. Open to semi-open areas contain several grass species; fescue *(Festuca* sp.), brome grass (*Bromus inermis*), Kentucky blue grass (*Poa pratensis*) and a native panic grass (*Dichanthelium* sp.) (Figure 1 B.1). Hackberry saplings, box elder, invasive

honeysuckles, gooseberry, green ash (*Fraxinus pennsylvanica*), black walnut and bitternut hickory (*Carya cordiformis*) exist in the subcanopy. Other species observed were; white snake root, calico aster (*Symphyotrichum lateriflorum*), black raspberry, Canada goldenrod (*Solidago canadensis*), ninebark (*Physocarpus opulifolius*) and staghorn sumac shrubs along the wooded edge of the former golf course. Invasive honeysuckles, gooseberry, non-native common buckthorn, and prickly ash are common subcanopy species, and shrub density varies from more open woodland with little to no shrubbery to areas of dense non-native and native shrubs. The observable ground story vegetation in B.2 and B.3 is mostly comprised of non-conservative native plants, such as white avens (*Geum canadense*), white snake root, side flowering aster, black raspberry, Canada goldenrod, common enchanter's night shade (*Circaea lutetiana*) and more conservative species such as lopseed (*Phryma leptostachya*). Non-natives include; burdock (*Arctium minus*), fescue grass and garlic mustard.

Some woodlands (Figure 1, B.4) have a moderate density of spruce trees. The subcanopy is moderately dense with invasive honeysuckles and common buckthorn, with scattered natives that include gooseberry, ironwood (*Ostrya virginiana*), bitternut hickory, northern pin oak (*Quercus ellipsoidalis*), red cedar, bur oaks, and wild black cherry (*Prunus serotina*). Planted evergreens such as Norway spruce (*Picea abies*) were also observed. The ground is well covered with native non-conservative species, such as white avens, lopseed and sweet cicely (*Osmorhiza claytonia*). Non-native Oriental bittersweet (*Celastrus orbiculatus*), an aggressive non-native vine, is also found.

These woodlands have received little forest management over the years, resulting in invasion by a variety of non-native herbaceous and shrub species, causing shade suppression of the ground story. Remaining ground story native species are mostly non-conservative species, such as white avens, which is common in disturbed woodlands. There is a lack of native bunch grasses and bunch sedges in the woodlands, and there appears to be a sparse spring flora component that would be available for early season use by RPBB. Therefore, the site's closed canopy woodlands have low RPBB suitable habitat for foraging, nesting, or overwintering.

Semi-Open Woodlands within Former Fairways

The semi-open woodlands (B.5.1-B.5.3) appear to lack sufficient early blooming nectar sources to attract and support RPBB. Additionally, even though the golf course has been closed for several years, past chemical use may limit these areas as suitable nesting and overwintering RPBB habitat. Therefore, the site's semi-open woodlands within the former fairways have low suitable habitat for RPBB.

Within the former golf course footprint are several woodlands/woody areas of various tree density and openness (Figure 1, B.5.1-B.5.3) mostly coinciding with the old golf course's fairway and roughs. The ground cover of these open areas are vegetatively consistent with other open grassy areas of the golf course. A common tree species in some of the more closed woodlands on the former golf course is bitternut hickory of varying diameters. Most of the groundstory vegetation is made up of non-conservative native species and some non-natives; muhly grass (*Muhlenbergia mexicana*), sunflower (*Helianthus* sp.), black raspberry, Canada goldenrod, sedges., blackberry (*Rubus allegheniensis*), white avens, common ragweed (*Ambrosia artemisiifolia*), wild grape, calico aster, evening primrose (*Oenothera biennis*), non-native invasive honeysuckle, and green briar (*Smilax* sp.).

Other interior woodlands consist of a rolling terrain of scattered woodland and open areas that were part of the former golf course's fairway, rough and path system. Besides red cedar, a variety of other trees and shrubs (many planted) are found in most other areas of the former golf course footprint. Trees and shrubs are scattered and grade from moderately closed canopy to open grassland. Additional species include; red fescue, staghorn sumac, brome grass, round-headed bush clover (*Lespedeza capitata*), hoary vervain (*Verbena stricta*), side-oats grama (*Bouteloua curtipendula*), wormwood (*Artemisia* sp.), whorled milkweed (*Asclepias verticillata*), common ragweed, common mullein (*Verbascum thapsus*), evening primrose, invasive Siberian elm (*Ulmus pumila*), dropseed (*Sporobolus* sp.), aster, and panic grass. Rodent burrows/mounds were observed on grassy slopes next to tree/shrub edges and these areas could be utilized by RPBB. However, past chemical use (herbicides and insecticides) employed to maintain a manicured golf course could be residual in the soil, which may make these areas unsuitable for RPBB. Considering existing vegetation and past disturbances, the site's semi-open woodlands within former fairways have low suitable habitat for RPBB.

Open Grassland Habitats within Former Fairways

While many of the open grassland habitats on the MLPA (Figure 1 C1-C.2 & C.4-C.8) contain some native and non-native species, the diversity and total coverage of foraging/flowering plant species that might be utilized by RPBB is low. Therefore, because of low diversity and quantity of flowering plant species that bloom throughout the entire growing season, these areas represent low suitability foraging habitat.

The former golf course's fairways and roughs contain bunch grass areas and while these areas were disturbed by mowing and pesticide use during golf course operations, some areas since closure could have developed into low suitable bunch grass habitat for RPBB nesting and overwintering. However, the golf course's likely use of herbicides and insecticides throughout the fairways and roughs may have left residual chemical constituents in the soil such that these bunch grass open areas (Figure 1 C1-C.2 & C.4-C8) provide only low suitable habitat.

The largest acreage of the MLPA has an open, bunch grass (fescue) matrix with interspersed native and non-native species (Figure 1, C.1-C.4 & C.6 & C.8). Most of these open, fescue grass-dominated areas occur on the former, mass graded golf course's, fairways and roughs. Within these grassed areas exist a variety of native and non-native plant species. Plant species observed included stickseed (*Hackelia virginiana*), mare's tail (*Conyza canadensis*), Canada goldenrod, frost aster, other asters, , hoary vervain, yarrow (*Achillea millefolium*), evening primrose and dogwoods at the woods edge. Non-natives included red fescue, smooth brome, Kentucky bluegrass, spotted knapweed (*Centaurea* sp.), sweet clovers (*Melilotus* sp.), catnip (*Nepeta cataria*), goat's beard (*Tragopogon* sp.), common buckthorn, burdock, common mullein, and Queen Anne's lace (*Daucus carota*). While management mowing has ceased, the vegetation remains short due to abundance of short-statured grasses such as fescue. Rodent/small mammal burrows/mounds were observed next to tree/shrub edges and could provide an opportunity to be utilized by RPBB.

The artificial mounds (Figure 1 C.2, C.6, C.8) most likely constructed from on-site soils (sands) as part of the former golf course are now covered with a variety of greases and sedges, such as fescue grass, smooth brome, Kentucky bluegrass, little bluestem grass (*Schizachyrium scoparium*) lovegrass (*Eragrostis* sp.), sedges, dropseed, panic grass and fall panic grass (*Panicum dichotomiflorum*), Scattered patches of native and non-native flowering species of Canada thistle (*Cirsium arvense*), common milkweed, partridge pea *(Chamaecrista fasciculata*), prairie sage (*Artemisia ludoviciana*), round-headed bush clover, Canada goldenrod, sweet clovers, spotted knapweed, hoary vervain, whorled milkweed, yarrow, round-headed bush clover, rush (*Juncus* sp.), pagoda-plant (*Blephilia* sp.), wormwood, asters, and horseweed. Red cedars were found as were clones of staghorn sumac scattered clumps of wild plum (*Prunus americana*), dogbane (*Apocynum* sp.), Siberian elm, and red-osier dogwood. Although there are a low to moderate number of native and non-native flowering species that could support RPBB, the plant species observed do not provide a continuous supply of nectar/flowering species throughout the growing season, as is required by RPBB.

The southeast corner of the MLPA is adjacent to a restored woodland on the Grey Cloud Dunes SNA (Figure 1, C.4). This southeast tip of the site is mostly former golf course fairways and roughs that were mass graded to the edge of Mooers Lake. This area is also dominated by red fescue with a variety of native and non-native species established between the bunch grass clumps. Therefore, these open grassland habitats within former fairways represent low suitability habitats for RPBB.

Prairie Remnant (Area C.3)

The short bunch grass habitat in the southeastern portion of the site (Figure 1 C.3) may represent moderate suitability habitat for RPBB.

The area in the southeastern portion of the MLPA (Figure 1, C.3) is adjacent to Grey Cloud Dunes SNA and appears to be where land disturbance from the former golf course was limited. Little bluestem, a native prairie bunch grass, is moderately abundant in this area, along with the fescue short bunch grass found thought the former golf course. Natives and non-natives were observed between little bluestem and fescue clumps, including prairie sage, dropseed, round-headed bush clover, panic grass, wild bergamot, hairy grama (*Bouteloua hirsuta*), prairie rose *(Rosa arkansana*), whorled milkweed, scouring rush (*Equisetum* sp.), hoary vervain, spotted knapweed, and goldenrod. Shrubby areas contained

sumacs, invasive honeysuckles, and clusters of young boxelder and willow. This relatively small area is the only habitat on the MLPA that resembles a native short bunch grass prairie. Given the abundance and diversity of blooming species and limited past disturbance, this portion of the site represents moderate suitability habitat for RPBB.

Mooers Lake Shoreline (Area C.7)

The lack of plant diversity and lack of abundant flowering/nectar species suggests the shoreline has low suitability foraging habitat. Bunch grass is less common along the sloped shoreline and thus has a low suitability nesting and overwintering habitat.

The shoreline (Figure 1, C.7) along the bank of Mooers Lake is comprised of a steep slope leading down to the water's edge, with canopy conditions ranging from open to closed canopy forest. Most of the open areas are dominated by weeds with a few native species and scattered trees/shrubs. Rodent/small mammal mounds/burrows were present, which could be utilized by RPBB for nesting/overwintering. Forested and woodland areas contained a mixture of native trees, shrubs, and herbaceous species, as well as some weedy and invasive plants. Due to lack of a continuous supply of nectar/flowering species and limited bunch grasses along the shoreline this represents low suitability habitat for RPBB.

Summary

1. ***Wetland A*** does not have sufficient nectar sources from early blooming plants and lacks diversity and quantity of nectar sources throughout the other portions of the growing season to attract and support the RPBB. The wetland also generally lacks suitable nesting and overwintering sites.
2. The ***closed canopy wooded areas*** appear to lack overwintering habitat for RPBB or ~~a~~ suitable spring flora.
3. The ***semi-open woodlands within former fairways*** appear to lack sufficient early blooming nectar sources to attract and support the RPBB. Summer and fall nectar sources by both native and non-native flowering plants are present, but diversity and quantity are limited. Additionally, even though the golf course has been closed for several years, past chemical use may still be present as a residual component that could limit these areas as suitable RPBB nesting/overwintering and foraging habitat.
4. While most of the ***open grassland habitats within former fairways*** contain some native and non-native species, diversity and total coverage of foraging species is low; therefore, these areas were determined to lack suitable foraging habitat.
5. A small area in the southeast portion of the MLPA appears to represent a native, short bunch grass ***prairie remnant***. This area is adjacent to Grey Cloud Dunes SNA, where RPBB has been recorded. The on-site prairie remnant is located outside the mass grading areas of the former golf course, appears to have experienced limited soil disturbance, and the likely chemical management used to maintain the manicured fairways, roughs and greens probably did not extend into this area. Therefore, this prairie remnant represents moderate suitability RPBB habitat.
6. ***Mooers Lake Shoreline*** contains native and non-native species; however, the diversity and total coverage of RPBB foraging species appears low. Therefore, this area was determined to lack suitable foraging habitat.

In closing, due to the MLPA's past disturbance (grading, golf course, chemical use, etc.), altered vegetation, low to moderate floral diversity, and apparent paucity of early-blooming species, the site generally represents low suitability habitat for RPBB. The exception to this is area C.3, which represents moderate suitability habitat for RPBB.

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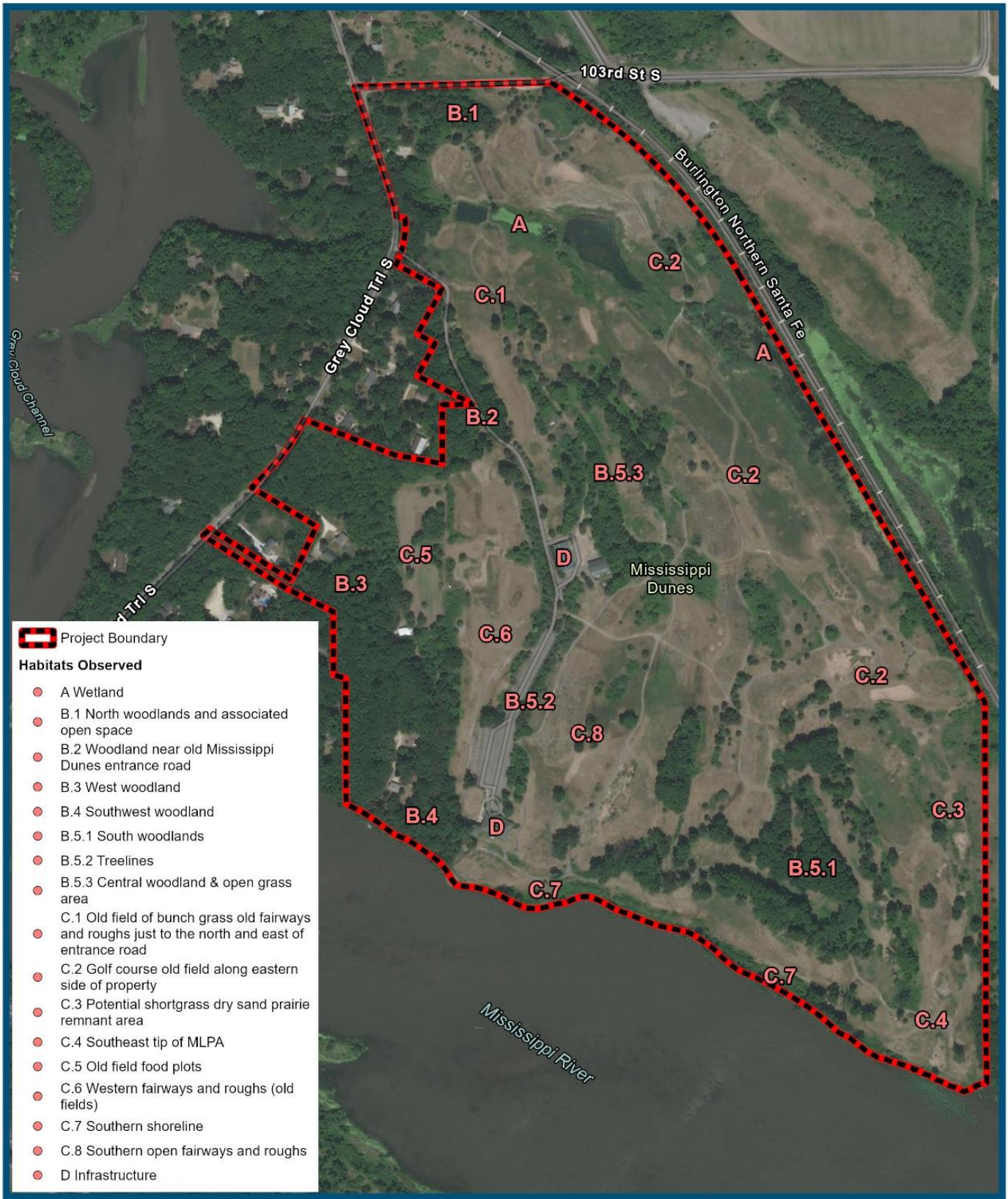
John L. Larson PhD, CSE

Senior Ecologist



www.res.us

FIGURE 1: HABITAT DESCRIPTION

MISSISSIPPI LANDING PROJECT AREA

WASHINGTON COUNTY, MN

Data Sources: RES, ESRI World Imagery 2021

Horizontal Datum: NAD 1983 State Plane MN South (US Feet)

0 250 500 Feet

1 inch equals 517 feet on an 8.5"x11" page

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A REPORT FOR PHASE I ARCHAEOLOGICAL SURVEY

Mississippi Landing Residential Development

City of Cottage Grove, Washington County, Minnesota

SEPTEMBER 2, 2022

PREPARED FOR:

Pulte Homes of Minnesota, LLC
7500 Flying Cloud Drive, Suite 670
Eden Prairie, MN 55344

PREPARED BY:

Westwood

Westwood

Phase I Archaeological Reconnaissance Survey

Mississippi Landing Residential Development

City of Cottage Grove, Washington County, Minnesota

Prepared For:

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Project Number: R0030343.00
Date: September 2, 2022

Abstract

Pulte Homes of Minnesota, LLC (Pulte) retained Westwood Professional Services, Inc. (Westwood) to conduct a Phase I Archaeological Reconnaissance Survey of the proposed Mississippi Landing Residential Development (Project) in the City of Cottage Grove (City) in Washington County, Minnesota. The survey was conducted to determine, in advance of construction, whether cultural resources are present within the Project's Area of Potential Effect (APE). As part of the Environmental Assessment Worksheet (EAW) process, the Office of the State Archaeologist and the State Historic Preservation Office recommended an archaeological survey of the Project Area and the City requested such work be done. Dean Sather, M.A., RPA, served as Principal Investigator for the Project and directly oversaw investigations. He was assisted by Westwood Cultural Resources Manager Ryan P. Grohnke. Field investigations were conducted June 16 and August 16, 2022.

The Project Area is in the Central Lakes Deciduous East (4e) Archaeological Region of Minnesota. The Project is located in Sections 30 and 31 of Township 27N, Range 21W in the City of Cottage Grove, along the north bank of the modern, northern channel of the Mississippi River in Washington County, Minnesota. The Project Area is approximately 204 acres, but Project activities will occur on a 165-acre portion of that land that is bounded by Grey Cloud Trail on the west, 103rd Street on the north, the northern channel of the Mississippi River on the south, and the Chicago, Burlington & Quincy railroad corridor on the east. No Project activities are proposed for the 38-acre parcel on the north side of the railroad corridor or within a setback proximal to the Mississippi River. The APE for this archaeological survey consists of 122 acres located within the Project Area where possible ground disturbance/grading for the development may occur (**Exhibit 1**).

Most of the Project Area is within the Mississippi Dunes Golf Course. The literature review learned that in the Findings of Fact and Record of Decision for the Former Mississippi Dunes Golf Course EAW, it was noted that "the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas," but "a Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed." Field investigations of the current Project Area consisted of visual inspection, pedestrian survey, and soil cores which confirmed the majority of the APE was disturbed. A ridge in a wooded area of the APE appeared to have had limited previous disturbance and higher level of archaeological potential. This ridge was shovel tested at 15-meter intervals.

No archaeological resources were observed. It is recommended the Project may proceed as planned. Should there be additions or changes to the proposed construction plans outside of the current APE, Westwood should be contacted to complete additional survey.

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Exhibits

Exhibit 1: Project Area
Exhibit 2: Archaeological Investigations

Appendices

Appendix A: Historical Maps and Aerial Photographs

Appendix B: Representative Photographs of Area of Potential Effect

Appendix C: Unanticipated Discoveries Plan

1.0 Introduction

Pulte Homes of Minnesota, LLC (Pulte) retained Westwood Professional Services, Inc. (Westwood) to conduct a Phase I Archaeological Reconnaissance Survey of the proposed Mississippi Landing Residential Development (Project) in the City of Cottage Grove (City) in Washington County, Minnesota. The survey was conducted to determine, in advance of construction, whether cultural resources are present within the Project's Area of Potential Effect (APE). As part of the Environmental Assessment Worksheet process, the Office of the State Archaeologist (OSA) and the State Historic Preservation Office (SHPO) recommended an archaeological survey of the Project Area, and the City requested a survey be completed.

Dean Sather, M.A., RPA, served as Principal Investigator for the cultural resource investigations. Mr. Sather meets the Secretary of the Interior's professional qualification standards as stipulated in 36 CFR 61. Ryan P. Grohnke, Westwood Cultural Resources Manager assisted with the field investigations.

The Project is located in Sections 30 and 31 of Township 27N, Range 21W in the City of Cottage Grove, along the north bank of the modern, northern channel of the Mississippi River in Washington County, Minnesota. The Project Area is approximately 204 acres, but Project activities will only occur within a 165-acre portion of that land that is bounded by Grey Cloud Trail on the west, 103rd Street on the north, the northern channel of the Mississippi River on the south, and the Chicago, Burlington & Quincy railroad corridor on the east. No Project activities are proposed for the 38-acre parcel on the north side of the railroad corridor. Additionally, a shoreland setback of at least 300 feet is preventing any activities within that proximity to the Mississippi River. Within the Project Area, approximately 122 acres may potentially be graded or disturbed by Project construction (**Exhibit 1**).

2.0 Scope of Work

Phase I Cultural Resources Survey was conducted to determine whether any undocumented significant cultural resources were present within the proposed Project's APE and to define vertical and horizontal boundaries of identified sites. If new sites were identified, investigators assess proposed construction impacts and would provide recommendations on avoidance or additional work. The APE for this archaeological survey covered all areas of the 122-acre portion of possible ground disturbance/grading where the development will be constructed, located within the greater Project Area (**Exhibit 1**).

3.0 Survey Methods

Project survey methods included background research, a literature review, and field investigations in the form of visual inspection, soil cores, pedestrian survey, and subsurface shovel testing. Environmental background and historic contexts were used to assess site probability and determine site types most likely to be encountered in the area.

The background research and literature review consisted of examining files in the online Portal maintained by the OSA and a request for data and files from the SHPO. Review at these offices included an examination of site maps, archaeological site forms, burial files, and survey reports. Other sources investigated included the Historic Andreas Atlas, Trygg Maps, and county histories and plat books. The background research and literature review identified previous

cultural resource investigations and previously recorded archaeological sites, along with levels of disturbance and potential for sites within the APE.

Fieldwork consisted of visual inspection, soil probes, pedestrian ground surface survey when applicable, and subsurface shovel testing in areas of high potential for archaeological deposits.

4.0 Results of Background Investigations

4.1 Environmental Background

The Project is located in the southernmost portion of the City of Cottage Grove and Washington County. The Project Area is generally bound by Grey Cloud Trail on the west, 103rd Street on the north, the northern channel of the Mississippi River on the south, and the Chicago, Burlington & Quincy railroad on the east. Grey Cloud Trail is lined with single-family residences, but the land is vacant and undeveloped to the north and east. The Project's southern boundary is formed by the north bluff of the modern, northern channel of the Mississippi River. The Project Grading Area is set back at least 300 feet from the river.

4.1.1 Landscape and Geomorphology

The Project is within the St. Paul-Baldwin Plains and Moraines (MN DNR Ecological Classification System [ECS] 2022); a central ESC subsection of the Minnesota and Northeast Iowa Moranial ECS section, found in the central area of the Eastern Broadleaf Forest ECS province. The St. Paul-Baldwin Plains and Moraines formed from deposits of highly calcareous glacial till left behind as the Des Moines lobe of the Wisconsin glaciation receded during the Pleistocene epoch. The primary landform of the region is dominated by a Superior lobe end moraine complex. A moraine stands to the north of a series of outwash plains associated with the Superior lobe. The topography of the subsection "is rolling to hummocky on the moraine (steep, short complex slopes) and level to rolling on the outwash." In the southeastern portion of the subsection there are some areas of Loess plain over bedrock or till (MN DNR 2022).

Within the subsection, "glacial drift is generally less than 100 feet thick." On its eastern edge, "Ordovician and Devonian dolomite (limestone, sandstone, shale) is locally exposed, especially in the dissected stream valleys at the eastern edge of the subsection" and "Precambrian bedrock is exposed along the St. Croix River" (MN DNR 2022).

The Project generally drains from north to south towards the Mississippi River, of which a modern, northern channel forms the southern Project boundary. Presently, Lower Grey Cloud Island stands to the south and Upper Grey Cloud Island stands to the west beyond the Grey Cloud Slough. Historically, the islands were joined as one and separated from the mainland by the slough with the Mississippi River channel being located south of Grey Cloud Island. Portions of the island were submerged in 1930 when Lock & Dam #2 was installed five miles downstream near Hastings. The Mississippi River Lock & Dam #2 Pool, extending upstream between Lock & Dam #2 and the Ford Dam, contains several backwater lakes including Baldwin (formerly Balden) Lake, River Lake, Spring Lake, Mooers (also Moore) Lake, and Grey Cloud Slough. Baldwin had stood on Grey Cloud Island and was partially submerged by the dam pool (MN DNR 2022). Historical maps and atlases published between 1874 and 1967 depict the changes to the river course near the Project (**Appendix A**).

The Project Area consists of rolling hills and varying topography with an overall southern slope. Historical atlases and topographic maps indicate that the land was cultivated for agricultural crops during the second half of the nineteenth and most of the twentieth century. The property was developed as an 18-hole golf course in 1992. Construction included "mass grading of the site that converted the site from its historical use for agricultural production into a manicured landscape that includes a series of greens and fairways, clubhouse and driving range" (Cottage Grove 2021:26). The former golf course and adjacent Scientific and Natural Area (SNA) were named for dunes that were formed by "southwesterly winds, blowing over two sandy terraces" that formed "dunes 10 to 20 feet high" (Anfinson 2004).

4.1.2 Soils

In the Project, most of the soils of the St. Paul-Baldwin Plains and Moraines subsection formed from glacial till deposited by the Des Moines lobe. Most soils are Alfisols (formed under forested vegetation) while there are areas of Mollisols (formed under prairie vegetation) present in the outwash plains. The plains have sandy parent materials, while those of the moraines are mixtures of clay loams, loams, sandy loams, and loamy sands. According to the U.S. Department of Agriculture's Natural Resources Conservation Service Soil Survey (USDA 2022), more than 80% of the Project is underlain by Sparta loamy sand with slopes of 2 to 6% and 6 to 15%. The remaining soil types consist of Chaska silt loam, Hubbard loamy sand, Dickman sandy loam, and Richwood silt loam (USDA 2022). While the Chaska silt loam is poorly-drained, the other soil types range from well- to excessively-drained.

4.1.3 Pre-Settlement Wildlife and Vegetation

Historically, the St. Paul-Baldwin Plains and Moraines were associated with "a mosaic of vegetation." The primary community were oak and aspen savannas, "but areas of tallgrass prairie and maple-basswood forest were common. Wildlife in the St. Paul-Baldwin Plains and Moraines varied from large predators to a variety of smaller animals; of which included wolves, badgers, deer, coyote, fox, jack rabbit, grouse, Blanding's turtles, and a diverse collection of woodland birds (MN DNR 2022).The dunes were "populated by prairie dropseed, sand reed grass, silky prairie clover, sea-beach needlegrass, longbearded hawkweed, blue racers (a rare snake) and prairie skinks" (Anfinson 2004).

4.2 Cultural History

In general, there are five major archaeological traditions in Minnesota that consist of the Paleoindian, Archaic, Woodland, Plains Village, and the later Mississippian, Oneota and Psinomani periods (Anfinson 1997; Arzigian 2008; Dobbs 1990; Gibbon 2012). These traditions represent varying degrees of cultural adaptations to changing environmental conditions, endemic population growth, and the movement of Native American groups in the past. The following cultural context presents an interpretation of this history based on current archaeological research and broadly accepted models for pre-contact social lifeways. A brief narrative of historic period developments within the state is provided after this section.

4.2.1 Paleoindian Period (13,000 to 9,000 Before Present [B.P.])

The Paleoindian Period represents the earliest evidence of human occupation in Minnesota. This is typically separated into an Early Paleoindian (13,000–12,500 B.P.) and Late Paleoindian (12,500–9000 B.P.) periods (Frison 1998). Spear technology is important during this time frame, as opposed to the emphasis on atlatl and bow and arrow lithic technology seen during

later periods. This reflects a subsistence strategy focused on large game hunting and high mobility. However, Gibbon (2012:37) suggests foraging behavior may have been broader spectrum as evidenced by the long temporal overlap of eastern Archaic and Paleoindian traditions in Minnesota. Paleoindian settlement and mobility patterns constitute a major discussion point in archaeological research.

Clovis culture is commonly regarded as the first evidence of human occupation in Minnesota during the Early Paleoindian period. Its signature implement, the Clovis projectile point, is made from high quality lithic materials and has a central channel flake that extends part way up the proximal shaft of the tool (Frison 1998). Folsom is another Early Paleoindian technology that temporally follows Clovis during the Early Paleoindian Period. Its projectile point is typically made from high quality materials as well, however, the central channel flake extends the entire length of the implement to the distal tip (Hofman 1995). Clovis and Folsom projectile points were used to hunt now-extinct forms of game, including Bison antiquus and mammoths. Evidence for Early Paleoindian occupation in Minnesota is limited to isolated finds of projectile points. Clovis isolated finds (N=30) have been found in central and southeastern Minnesota, while Folsom isolated finds (N=20) are documented in the western and southern parts of the state (OSA 2019).

The Late Paleoindian Period in Minnesota is characterized by an unfluted variety of projectile points similar to earlier lanceolate forms that are associated with the Plano Complex (Dobbs 1990). Agate Basin, Eden, Hell Gap, and Scottsbluff are varieties of projectile points found during this time, which are often associated with bison kill sites. Late Paleoindian sites are significantly more common in Minnesota, with over 200 being recorded. The Browns Valley Site in western Minnesota and the Bradbury Brook Site are important Late Paleoindian localities in the region (OSA 2019).

Paleoindian archaeology in Minnesota mirrors the initial expansion of Homo sapien sapiens during the height of the Eurasian Upper Paleolithic periods into North America (Gilligan 2010:16). The focal point of this migration is hypothesized to have occurred in a region termed Beringia, which extends from the Verkhoyansk Mountains in Siberian Russia to the edge of the now extinct Laurentide glacial ice sheet in western Canada (Hoffecker and Elias 2007). Traditionally, the shallow waters of the Bering Sea are argued to have served as the principal access point into the Americas when sea levels were reduced due to extensive glaciation that occurred during the Pleistocene Epoch (2.588 million to 12,000 B.P.).

The proposition that the Bering land bridge may have served as passageway for early human migrations was first suggested by the Spanish Missionary Fray Jose de Acosta in A.D. 1590 (Hoffecker and Elias 2007:2). Although Spain had not yet explored these waters, de Acosta thought it was the only logical explanation for how indigenous populations would have come to the Americas. Eric Hultén (1937) later coined the term “Beringia” to describe the Quaternary ecology of this unique region. The designation Beringia is named for the famous Danish explorer Vitus Bering, who by way of Russian contract, was the first to European sail the strait in 1728.

The area associated with the bridge is termed the Bering-Chukchi Platform which extends 1600 km from the Arctic Ocean to the eastern Aleutians (Hoffecker and Elias 2007:5). Although the majority of this region is flat, the topography is punctuated by a few small islands such as St. Lawrence Island and Wrangle Island. The majority of the shelf lies beneath less than 100 m of water and drops to 30 m near the Chukotka Peninsula, Russia. Over the 2.6 million year course of the Quaternary Period, 100 Marine Isotope Stages (MIS [Oxygen 16/18 ratios]) have been

documented which show the repeated exposure and inundation of the land bridge constituting 50 glacial/interglacial oscillations (2007:7–8). Initial human migrations into North America appear to be associated with the cold snap brought on by the Younger Dryas (12,900–11,700 B.P.), which effectively lowered sea-levels by 50 m, exposing the platform.

The archaeological record for humans expanding into North America is manifested at both interior and coastal sites. Early interior sites include that of Swan Point, Broken Mammoth, and Healy Lake, Alaska which suggest population movements between the Laurentide and Cordilleran ice sheets between 13,000–11,000 B.P. (Holmes 2001; Cook 1996; Yesner 2001). Concurrently, a rapid coastal migration is also indicated at several South American localities, such as Monte Verde, which demonstrate potential evidence for groups moving by boat down the Pacific shoreline at approximately 15,000 B.P. (Dillehay 1989; Dixon 1999; Fladmark 1979). Recent genetic work with mtDNA haplogroups in the Americas and Asia appear to confirm the archaeological evidence showing simultaneous coastal/interior population movement occurring between 18,700 and 14,200 B.P. (O'Rourke 2009; Perego et al. 2009). Alternatively, although followed by much criticism, Bradley and Stanford (2004) suggest that the progenitors of Clovis, and perhaps other groups, were the product of Atlantic migrations associated with peoples of the Solutrean cultures in France. Current genetic evidence refutes this claim; however, the issue does highlight an important debate in Alaskan archaeology (O'Rourke 2009; Perego et al. 2009).

The Pleistocene history of Minnesota is long and complex with most of the state and surrounding regions being covered in glaciers between 18,000 B.P. and 11,000 B.P. (Manz 2019:23). Glaciers did not fully recede until approximately 10,000 years ago, and only the southwestern and southeastern parts of the state remained unglaciated. A dominant feature following deglaciation was Glacial Lake Agassiz. This overlapped the northwest portion of the state and formed during the retreat of the Des Moines Lobe, which principally drained to the south via Glacial River Warren (Gibbon 2012:38). As Lake Agassiz further retreated north, the modern Red River of the North began to form flowing towards the Hudson Bay. In terms of human occupation potential, the southern part of the state is likely the highest probability area to encounter archaeological sites as it was unglaciated (Gibbon 2012:Map 2.1). Elk, mammoth, and extinct forms of bison (e.g., Bison antiquus) may have been hunted by Pleistocene Native Americans of this time frame in Minnesota, however, other resources were probably equally important.

Waguespack (2007:69–70) highlights current evidence for early migrations into North America that indicates hunter and gatherers may have been generalized foragers as opposed to explicitly large game predators. Historically, the first evidence for the Paleoindian Period comes from New Mexico where archaeologists uncovered fluted projectile points in association with extinct megafauna at sites such as Blackwater Draw (Cook 1927; Figgins 1927). These important early finds quickly placed the antiquity of humans on the mid-continent of North America at the end of the Late Pleistocene (Howard 1936). Much of the debate generated by these discoveries overly focused on the role mega-fauna placed in the subsistence economy of Paleoindian hunter and gatherers. This pattern is different than many of the interior localities dating prior to 11,000 B.P. (e.g., the Village Lake Site at Healy Lake in Alaska [Cook 1969]), which exhibit a broad-spectrum diet. Bison and Wapiti appear to be the predominant large game that was hunted during this early period; however, birds and other small mammals were also exploited (Yesner 2001).

Analogous patterns have been observed outside of Minnesota, including at eastern Great Basin sites such as Bonneville Estates Rock Shelter which demonstrate a broad-spectrum diet

occurring between 13,100 and 12,000 B.P. (Goebel 2007; Graf and Schmitt 2007:103). The archaeological record from this site suggests the prehistoric inhabitants were participating in a mixed foraging and hunting strategy. The identification of this trend in the Great Basin has led to the suggestion that this early phase be called the "Paleoarchaic" instead of "Paleoindian" in recognition of the markedly different subsistence strategies that were similar to later archaic groups (Graf and Schmitt 2007; Willig 1988; Willig and Aikens 1988). Realistically, the debate about whether early Paleoindians were generalized foragers or large game specialists likely rests "on the relationship between what could have been hunted and what was actually taken" (Waguespack 2007:70; Waguespack and Surovell 2003).

In contrast to these views, Kelly and Todd (1988) take the position that early populations of hunter and gatherers entering into the North American continent were heavily dependent on terrestrial fauna, as opposed to plant resources, since this was a more reliable food source. They argue that the strategies employed by these foragers were starkly different than that of modern hunter and gatherers in that groups were not operating in seasonally restricted spaces. An optimal foraging analysis for procuring large game has recently been conducted by Byers and Ugan (2005). Specifically, they identified variables that may have deterred Paleoindians from focusing exclusively on mega-fauna including the large number of individuals needed for processing, the difficulty in procuring game, and the distribution of these game within different environmental patches. The authors conclude that the phenomena of exclusive large mammal hunting likely only occurred in a "narrow range" of places where game was abundant and the processing time was low such as in the Great Plains (2005:1625). Minnesota and surrounding areas were likely encompassed by this narrower range as suggested by Kelly and Todd (1988).

Continuing with the issue of broad spectrum versus predominant large game hunting has been problematic to the debate of humans entering into the North American continent. Guthrie (1990) has supported the notion that humans could have easily followed the wide trails of proboscideans across the land bridge. Haynes (2001) reasons that modern African elephants can serve as an analogy for understanding how Pleistocene hunters may have interpreted herd characteristics. Such behavioral patterns include 1) the speed, direction, and health of an elephant herd based on the distribution/content of dung, and 2) the relative size of the animals based on the track width. Elephants create a series of fixed and habitually used trails that would have allowed initial colonizers into interior Alaska a means to systematically explore the landscape. Conversely, Yesner (2001:317) sees the process of colonization into interior Alaska as involving more of a "push-pull" factor presenting evidence for the existence of proboscideans in Siberia up to 9000 B.P. This suggests that hunters would have been encouraged to remain in western Beringia for a longer period of time to procure this higher ranked resource. Foragers may have only episodically crossed the land bridge as eastward movement began to develop as the principal subsistence cycle.

A theoretical trajectory of incipient occupation into novel landscapes has been proposed by Beaton (1993) to describe the initial colonization of Australia (also see Yesner 2001). His model breaks down human entry into two categories: transient explorers and estate settlers. Beaton suggests that the settlement pattern associated with transient explorers would be lineal conforming principally to significant geographic features such as mountains, rivers, etc. This type of occupation may be associated with the earliest sites in Minnesota, which could be situated along the margins of major river corridors (e.g., Glacial River Warren). High mobility and small populations are necessary with the transient model, since groups are entering into an unfamiliar landscape leading to potentially high extinction rates. In contrast, estate settlers

inhabit new lands in a more radial fashion since there is a greater degree of familiarity with the resources present. Kelly and Todd (1988) argue that immigrant Paleoindians would have had to switch territories frequently due to being in an unfamiliar landscape. This would have been an adaptive method to adjust to resource stress by either switching territories or adjusting the types of foods being consumed. In reality, the Early and Late Paleoindian Periods in Minnesota likely represented a combination of these alternating mobility strategies.

4.2.2 Archaic Period (9,000 to 2,500 B.P.)

Approximately 9,000 B.P., a new mode of subsistence strategy began to emerge in the archaeological record across North America (Emerson et al. 2011). The general pattern of this change is the replacement of lanceolate spear-points used during the Paleoindian period, and the adoption of atlatl technology with the presence of groundstone implements. This represents a fundamental difference from earlier forager behavior with a diversification of economy that incorporated more plants into the diets of Native Americans. The Archaic Period in Minnesota began substantially later than other regions starting around 9,000 B.P., principally in the southeastern part of the state (Anfinson 1997; Gibbon 2012). Important Archaic innovations include the use of grooved mauls and axes, canine domestication, copper tools, and incipient horticulture. The Archaic Period in Minnesota is poorly known; however, it comprises its longest temporal frame of human occupation.

Xeric environmental conditions began around 9,000 B.P. with the spread of prairie grassland across most of southern and western Minnesota (Anfinson 1997). Many of the lakes that had been created as a product of Pleistocene glaciation started to dry during this time, leading to a reduction in game (e.g., bison, fish, birds, etc.) dependent on these resources. These environmental transformations promoted a diversification in hunting strategies, which differed dramatically from the Paleoindian period.

Minnesota experienced a wide variety in changing environmental conditions based on its different ecotones across the state during this time. Consequently, the traditional models of Early, Middle, and Late Archaic found elsewhere in North American do not directly apply. These different environmental regimes necessitated a variety of adaptive strategies in order to successfully subsist. Archaeologists have defined these internal periods within the state as follows: Prairie Archaic, Lake Forest Archaic, Shield Archaic, and Riverine Archaic (OSA 2019).

The Prairie Archaic Period is found across the western parts of Minnesota, representing an adaption to grassland environments. A key game hunted during this period were bison, which remained a focus throughout the entirety of the Archaic Period. Itasca State Park Site contains one of the best examples of the Prairie Archaic pattern. This site dates approximately to between 9,550 and 7,950 B.P. and yielded the remains of extinct species of bison and the presence of side-notched dart point. Other important localities from the Prairie Archaic Period include the Granite Falls Site and the Canning Site. A regional variation of the Prairie Archaic during the later periods is the presence of copper tools in the northwestern part of the state, but few examples in the southwestern areas (Anfinson 1997).

The temporal period known as the Lake Forest Archaic accompanies archaeological sites from about 7,950 B.P. in much of central and northern Minnesota (Anfinson 1997; Gibbon 2012). Prior to this period, most sites in this region would have mirrored those found in grasslands whose economy focused on bison hunting. As a result, the Prairie Archaic pattern would have been prevalent during the earliest periods based on the similar environment. The expansion of

woodlands during the mesic environments of the post-glacial thermal maximum led to a greater diversification of both plant and animal species. The Mississippi River corridor also served as a conduit for archaic groups from other regions, which ultimately influenced the potential spread of technologies and new lifeways into Minnesota. The site of Petaga Point in Kathio State Park is one of the best examples of the Lake Forest Archaic Period and contains evidence of Old Copper culture.

The Shield Archaic Period characterizes sites from far northeastern Minnesota whose assemblages are the product of Native American adaptations found farther north in Canada (i.e., Canadian Shield). An important characteristic of Shield Archaic sites is the lack of groundstone tools and copper artifacts found associated with archaic groups elsewhere in Minnesota (Anfinson 1997; Gibbon 2012). Shield Archaic sites in Canada are typically found near lakes and rivers where caribou and other migratory game may have crossed. Similar to other northern adapted populations, these groups may have utilized specialized technologies such canoes, snowshoes, toboggans, bark- and skin-covered shelters, bark containers, and efficient winter clothing. The Fowl Lake Site is an important Minnesota site near the Canadian border that exemplifies the archaeological record of this period.

The Riverine Archaic period is found at sites located along the lower Mississippi River and other drainages in southeastern Minnesota (Anfinson 1997; Gibbon 2012). The river valley bottomlands provided a rich and varied source of animals and plants that were exploited by Native American populations. Common riverine resources included aquatic tubers, fish, waterfowl, mussels, deer, elk, and bison may have been taken in the uplands. The fertile floodplains also provided suitable locations for horticulture where plants such as squash and various early cultigens were grown. The King Coulee Site in Wabasha County is one of the most complete archaic sites from this region and dates to between 3,450–2,450 B.P. A slate gorget, mussel shells, squash seeds, and stemmed projectile points were recovered during the excavations (OSA 2019).

4.2.3 Woodland Tradition (3,000 B.P. to 950 B.P.)

Substantial cultural changes began to occur in Minnesota approximately 2,500 years ago with Native American adaptations mirroring broader trends across the southern and eastern United States (Arzigian 2008). This timeframe, known as the Woodland Period, is marked by the presence of burial mounds, pottery, bow and arrow technology (ca. 1,450 B.P.), and intensive plant cultivation. Archaeological settlement patterns show Native American groups beginning to aggregate into larger populations along lakes, rivers, and associated drainages. Woodland archaeological sites are often broken into one of a classic tripartite temporal division of Early (3,000–2,150 B.P.), Middle (2,150–1,450 B.P.), and Late Woodland (1,450–950 B.P.) Periods (Emerson et al. 2011).

Traditionally, variations in the Woodland Period across time and space are argued to derive from broader influences that shaped significant trends in cultural practices. These interaction spheres include the Adena (Early Woodland Period), Hopewell (Middle Woodland Period), and Mississippian (Late Woodland Period) Cultures (Anfinson 1997; Gibbon 2012). While these divisions work well for other regions of North America, they do not neatly apply to archaeological sites in Minnesota (Arzigian 2008).

Major Woodland complexes in the various regions of the state include Laurel, Brainerd, and Blackduck (northern Minnesota); Malmo, St. Croix, Onamia, and Kathio (central Minnesota);

Fox Lake and Lake Benton (southwestern Minnesota); and La Moille, Howard Lake, Sorg, and Effigy Mound (southeastern Minnesota) (Arzigian 2008). Pottery is an important distinguishing characteristic of these complexes, which are commonly named for the associated site type where they were first discovered. Ceramic vessels range in form from globular to conoidal with shell or sand grit as temper, and designs across the body (e.g., net impressions, patterned incisions). Lithic technology during this time frame shows a preference for smaller projectile points utilized principally in bow and arrow technology.

A hallmark characteristic of the Woodland Period in Minnesota is presence of burial mounds, of which 12,000 have been recorded in the state (OSA 2019). The areas surrounding Red Wing, Lake Minnetonka, and Mille Lacs Lake have the highest concentrations of burial mounds. Many of these structures have been destroyed due to historic and modern development.

The subsistence strategies of Woodland groups in Minnesota varied widely based on the type of resources available. Wild rice was central to groups living in the northeast quarter of the state, which was husked in excavated pits and parched in ceramic vessels (Arzigian 2008). Other resources hunted or gathered included deer, fish, and various plants such as maple sap for sugar. Farther west, around the Red River Valley and southern Minnesota, bison continued to be as important as they were in the Archaic Period (OSA 2019). The “Three Sisters” of squash, beans, and corn were grown in small garden plots, which were further supplemented with other resources (e.g., fish and aquatic mammals).

4.2.4 Mississippian, Oneota, Plains Village, and Psinomani Traditions (950 B.P. to European Contact)

The Woodland Period ends throughout most of Minnesota around 950 B.P. with the exception of the northern portions of the state (Arzigian 2008; Gibbon 2012). The dominant regional influence was the site of Cahokia in the American Bottom near the modern city of St. Louis, Missouri on the Mississippi River (Pauketat 2009). This influence is most clearly seen in archaeological sites near Red Wing, Minnesota, which contain Cahokian-style ceramics, large palisaded villages, and evidence of corn horticulture. The presence of square earthen mounds may be a reflection of Cahokian socio-religious belief systems. In Minnesota, the manifestation of this interaction is called the Silvernale Phase (Gibbon 2012).

A widespread cultural complex called Oneota in Minnesota is concurrent with the regional influences of Cahokia lasting from approximately 950 B.P. until the time of French contact (Gibbon 2012). These mobile groups shared Middle Mississippian traits that included corn horticulture and shell-tempered ceramics (e.g., globular vessels with high rims), but lacked permanent structures such as burial mounds. Oneota is manifested in different types called Orr (southeastern Minnesota), Blue Earth (south-central Minnesota), and Ogechie (central Minnesota). Sinouan languages were spoken at the time of French contact (OSA 2019).

Plains Village groups from the region of the Missouri River in the Dakotas began to interact with the Oneota in western Minnesota after 950 B.P. (Anfinson 1997; Ahler and Kay 2007). These groups hunted bison and practiced corn horticulture and lived within earth-lodges protected within palisaded forts (e.g., Double Ditch Site in North Dakota). Globular shaped ceramic jars with crushed rock temper are a hallmark technology of this period. Important Plains Village ceramic complexes in western Minnesota include Cambria, Great Oasis, and Big Stone (OSA 2019).

Psinomani groups are believed to be the ancestors of the modern Dakota people who lived in east central Minnesota (Gibbon 2012). The principal ceramic type associated with this group is Sandy Lake, whose form is more similar to a bowl rather than the globular jars of Oneota varieties. There is evidence of blended ceramic styles with Oneota Native Americans.

4.2.5 Contact Period and Post-Contact (A.D. 1650 to Present)

The Fur Trade in Minnesota involving Europeans and Native Americans first started in the early 1600s and marked the beginning of contact between these two populations. The historical implications of this interaction were felt in numerous ways both economically and with great social consequence (e.g., smallpox). The major European players in this arena of interaction were first the French, who traveled south from Canada, followed later by the British, and then Americans from the east. French explorers Marquette and Joliet were among the first Europeans to reach the headwaters of the Mississippi after entering Minnesota in 1673 (Kellogg 1917). A French group led by Sier du Lhut arrived in the area of the St. Croix River in 1679-1680 and Louis Hennepin led the 1680 expedition of the Mississippi River below St. Anthony Falls (NPS 2019, chapter 3). The French built posts throughout the region to ward off British and Spanish expansion, but their influence declined in the first half of the 1700s. Their government and military's attention was directed toward the War of Spanish Succession from 1702 to 1713, and the resulting treaty that ended the war stripped France of its claims to Nova Scotia, Newfoundland, and its lands around Hudson Bay. France's exit from the region was hastened by the French and Indian War from 1756-1763, which resulted in their cession of claims in Canada and most of America to the British.

Fur continued to be the primary driver of trade and exploration in the region well into the 19th century. New American posts and settlements were established, including Fort Snelling at the junction of the Mississippi and Minnesota Rivers in 1824. Natural resources in the region were bountiful, from fertile soil for agriculture, dense forests for logging, and rivers for powering processing facilities and trade routes.

Several treaties signed in 1837, 1851, and 1855 between the US Government and the Dakota and Ojibwe coerced the tribes of claims to their ancestral land, which was subsequently opened to [European-American] settlement and agriculture (NPS 2019).

Settlement of Cottage Grove Township

Although the Project is presently within the Cottage Grove city limits, it was historically set in unincorporated Cottage Grove Township. The Project is located in Section 30 and 31 in Cottage Grove Township (Township 27N, Range 21W) in the southwest corner of the city of Cottage Grove in southernmost Washington County. This area between the Mississippi and St. Croix Rivers, known as the St. Croix Triangle, was claimed by the US Government as part of the Wisconsin Territory in 1847. Two years later, the land west of the St. Croix River was incorporated into Minnesota Territory. Cottage Grove Township was officially organized within days of Minnesota achieving statehood in 1858. The first permanent White settlers in the Cottage Grove area likely arrived in 1843. Most of them were American born "Yankees" from "New England states, such as New York, Maine, Vermont, and New Hampshire." By 1855, "Cottage Grove was one of the fastest-growing rural townships in Minnesota, with schools, churches, a lyceum hall, and perhaps twenty or thirty farms" (NH 2021:3).

The Project stands 1.75 miles south of St. Paul Park and 1.5 miles west of Langdon. The villages of Cottage Grove and Langdon were both established in 1871. Langdon was platted along the CMStP railroad line while Cottage Grove was originally located in Section 12, about four miles east of its present location. The towns in Cottage Grove Township remained relatively rural in the first half of the twentieth century.

Between 1951 and 1967, the present city of Cottage Grove was platted just east of St. Paul Park, and the original village in Section 12 became Old/East Cottage Grove. During that period, St. Paul Park's footprint nearly doubled in size. After World War II, "the once-rural area began to experience the effects of suburban sprawl." Thompson Grove was the first of many neighborhoods developed in Cottage Grove in the 1950s with ranch-style homes (WCHS 2022). Between 1950 and 1960 the population of Cottage Grove grew from 833 to over 4,800 residents. In addition to providing modern housing for young families, the post-war "baby boom" necessitated larger, modern schools. In 1951, there were two schools in the city of St. Paul Park and one in Langdon. By 1967, the school in Langdon had closed and there were at least seven schools in St. Paul Park and three in Cottage Grove. The consolidation of schools also reflects the changing municipal boundaries in the 1960s. In 1963, the entire township was incorporated as Cottage Grove, becoming a city in 1974 (NH 2021:4). The population of Cottage Grove grew to 13,400 in 1970 and has continually been among the Twin Cities' fastest growing suburbs. Its population surpassed 20,000 by 2000 and there were over 38,800 residents in 2020 (US Census 2020).

5.0 Literature Review

On April 13, 2022, Westwood Cultural Resource Manager Ryan Grohnke requested a database search from the SHPO. Additionally, he reviewed the Minnesota state archaeological site files available via the online Portal, maintained by the OSA, to obtain a list of previously recorded archaeological sites and historic structures located within the proposed Study Area which consisted of the Project Area and a one-mile buffer.

5.1 Archaeological Region

The Project Area is located in Minnesota Archaeological Region 4e – Central Lakes Deciduous (East). Prehistoric sites in this region are generally located near lakes and major rivers (Gibbon et al. 2002).

5.2 Previous Surveys

No reports indicating previous survey of the Project Area were reported by SHPO staff.

5.3 Previously Recorded Archaeological Resources

No previously recorded archaeological sites have been identified within the proposed Project Area. Four previously recorded archaeological sites are within the one-mile Study Area surrounding the Project, with the closest approximately 0.20 miles distant (**Table 5-1**). Two of the sites are prehistoric earthworks/cemeteries, of which one is also an artifact scatter. One of the sites, 21WA0001 is listed in the NRHP. None of the sites will be physically impacted by the proposed Project.

Table 5-1: Previously Recorded Archaeological Sites Within One Mile

Site Number	Site Name	Site Type	NRHP Eligibility	Distance from Project
21WA0001	Schilling Archaeological District	Prehistoric Artifact Scatter/Earthworks	NRHP Listed	0.90 mi southeast
21WA0002	Michaud-Koukal Mounds	Prehistoric Earthworks	Unevaluated	0.20 mi west
21WA0048	Grey Cloud Townsite	Historic Artifact Scatter (possible prehistoric component)	Unevaluated	0.95 mi southwest
21WAe	unnamed	Single Artifact (projectile point)	Unevaluated	0.25 mi south

5.4 Previously Recorded Historic/Architectural Resources

Twenty-five historic/architectural resources have been previously inventoried within the one-mile Study Area surrounding the proposed Project (**Table 5-2**). One resource is located in the northwestern corner of the Project Area; the Herb Fritz House at 10301 Grey Cloud Trail (WA-CGC-034) is unevaluated for NRHP eligibility. One resource in the Buffer is listed in the NRHP. The Grey Cloud Lime Kiln at 10398 Grey Cloud Trail (WA-CGC-018) is 0.2 miles west of the Project Area. Because of its setting at a lower elevation and the intervening woodlands, views between the Grey Cloud Lime Kiln and the proposed Project will be obscured. The remaining 23 historic/architectural resources in the Buffer are unevaluated for the NRHP. Two resources associated with the Chicago, Burlington & Quincy Railroad Line (WA-CGC-212 and WA-CGC-223) are immediately adjacent to the Project. One house and one barn (WA-CGC-103 and WA-CGC-172) stand within 350 feet of the Project Boundary along Grey Cloud Trail.

Table 5-2: Previously Recorded Historic/Architectural Resources within One Mile

SHPO ID	Resource Name/Type	Address	NRHP Eligibility	Distance from Project
WA-CGC-018	Grey Cloud Lime Kiln	10398 Grey Cloud Trail	Listed in NRHP	0.2 mi west
WA-CGC-034	Herb Fritz House	10301 Grey Cloud Trail	Unevaluated	Northwest corner of Project
WA-CGC-049	School District No. 48, Grey Cloud Schoolhouse	10870 Grey Cloud Dr.	Unevaluated	0.42 mi southwest
WA-CGC-057	Jeremiah Daly House	10971 Grey Cloud Trail	Unevaluated	0.28 mi southwest
WA-CGC-079	Schilling House	12075 Grey Cloud Trail	Unevaluated	0.93 mi southeast
WA-CGC-081	Nelson Farmstead	7350 100th St. S.	Unevaluated	0.44 mi northeast
WA-CGC-097	house	7979 110th St. S.	Unevaluated	0.99 mi east
WA-CGC-100	Dammer House	9790 Grey Cloud Trail	Unevaluated	0.48 mi northwest
WA-CGC-101	Anthony Fritz Farmstead	9962 Grey Cloud Trail	Unevaluated	0.45 mi northwest
WA-CGC-102	Caldwell Farmstead	9988 Grey Cloud Trail	Unevaluated	0.27 mi northwest

SHPO ID	Resource Name/Type	Address	NRHP Eligibility	Distance from Project
WA-CGC-103	Matczynski House	10300 Grey Cloud Trail	Unevaluated	0.03 mi west
WA-CGC-161	bridge	Grey Cloud Trail S. at Grey Cloud Slough	Unevaluated	0.17 mi southwest
WA-CGC-163	Frank Tibbets Farmstead	9451 Grey Cloud Trail	Unevaluated	0.97 mi northwest
WA-CGC-172	Pete Tibbets Barn	6500 103rd St. S.	Unevaluated	0.05 mi north
WA-CGC-173	farm buildings	7624 110th St. S.	Unevaluated	0.59 mi east
WA-CGC-182	Joseph R. Brown Trading Post Site		Unevaluated	0.95 mi south
WA-CGC-205	Lower Grey Cloud Island	off Grey Cloud Trail S.	Unevaluated	0.65 mi south
WA-CGC-212	Chicago Burlington & Quincy Railroad Line		Unevaluated	Adjacent
WA-CGC-217	Glendenning Farm Windbreaks	off 100th St. S.	Unevaluated	0.45 mi northeast
WA-CGC-222	Bridge No. L8159	Grey Cloud Trail over Grey Cloud Channel	Unevaluated	0.21 mi southwest
WA-CGC-223	Bridge No. 90738	103rd St. under BN Inc	Unevaluated	Adjacent
WA-CGC-234	J. L. Shiely Co. Nelson Plant	Lower Grey Cloud Island	Unevaluated	0.67 mi southwest
WA-GCI-002	Grey Cloud Island Drive Fill	Grey Cloud Island	Unevaluated	0.3 mi west
WA-GCI-003	Grey Cloud Trail Causeway	Grey Cloud Island	Unevaluated	0.35 mi west
WA-GCI-004	Grey Cloud Island Cemetery	Grey Cloud Island	Unevaluated	0.99 mi west

5.5 Other Sources and Development History

Historical maps, aerial photographs, and local histories of the Project Area were reviewed to ascertain locations of potential, unrecorded historic or archaeological resources (**Appendix A**). The following maps were viewed for Cottage Grove Township:

- 1848 Original Survey of Township 27 N, Range 21 W, General Land Office Survey (Bureau of Land Management)
- 1874 Historical Atlas of the State of Minnesota (Andreas)
- 1879-99 Detail map of the upper Mississippi River from the mouth of the Ohio River to Minneapolis, Minnesota, volume 2 (Mississippi River Commission)
- 1901 Plat Book of Washington County (Northwest Publishing Co.)
- 1912 The Farmer's Atlas and Directory of Washington County (Webb Publishing Co.)

- 1916 Plat Book of the State of Minnesota (W.W. Hixson & Co.)
- 1938 Plat Book of Washington County (Hudson Map Co.)
- 1950, 1951, 1967, 1973, 1980, 1989, 1993, 2010, 2013 St. Paul Park, MN 7.5' topographic maps (USGS)

There are no indications of permanent settlement in the 1848 General Land Office (GLO) original survey of the township. The river channel and the generally parallel "prairie boundary" to its northeast (along which a railroad corridor would later be constructed) are indicated in Section 30, as are portions of two trails on either side of the river. An outlined square that may represent the location of a field is shown overlapping the border of Sections 19 and 30. In the 1874 atlas, no homesteads or other buildings are indicated in the vicinity of the Project. On the 1879-99 detail map of the Mississippi River, the CBQ Railroad corridor crosses the Project Area and two buildings are indicated near the southeast corner, but no landowner names are listed in Sections 30 or 31. The 1901 atlas indicates Section 30 had been subdivided into nine parcels ranging in size from 15 to 200.95 acres. Most of the Project stood on the largest parcel, which was owned by the Security Trust Co. The railroad cutting through the Project along a southeasterly corridor was operated by the CBQ Railroad. Grey Cloud Trail and 103rd Street S., which form the western and northern boundaries of the Project, are also indicated. The river corridor is indicated by a single line with no delineation of the riverbed or nearby channels. Outside of the Project, Anthony Fritz operated the Oak Grove Stock Farm on two parcels that overlapped Sections 19 and 30. The Project is set 1.75 miles south of St. Paul Park and 1.5 miles west of Langdon. The CBQ Railroad first appears in the 1912 map.

Very few changes in the Study Area were evident between the 1901, 1912, and 1916 atlas publications; before 1912 a second schoolhouse was added at the southwest corner of Section 19 and the large parcel upon which the Project stands was owned by Dorthea Fritz. By 1938, the land was owned by Otto J. Radusch. The schoolhouse that previously appeared in Section 30 was not indicated, but the map did include general delineations of the riverway.

The USGS topographic maps since 1950 have shown woodlands near the slough and river along the west and southern Project borders. A narrow swath of trees extends into the Project near its northwest corner, following along a low-lying depression. Wetlands are indicated alongside the CBQ right-of-way; the 2021 EAW for this Project identifies these as "surface water management including ponding and wetland areas" (CG 2021). The 1950 map indicates three buildings, including two residences were set at the northwest and southeast corners of the Project. An unofficial roadway meandered south and east across the Project from Grey Cloud Trail to the house in the southeast corner. By 1967, three additional structures, including one residence, were built along this path within the Project Area. The schoolhouse in Section 19 was not indicated in topographic maps. The changes reflected in the maps align with the period during which small schoolhouses were closed and students in rural outlying areas were bussed into modern city schools.

On Lower Grey Cloud Island, southwest of the Project, gravel pits were first indicated in 1967, with significant activity evident through 1993. That year's publication was the first that Grey Cloud Trail was labeled with that name. Additionally, a gravel pit and cluster of commercial buildings had been constructed in Section 30, north of the Project. Topographic maps between 1967 and 1993 indicate four residences and three additional structures within the Project Area, but only four buildings are presently extant. Research suggests the extant historic-age buildings

on the Project property include one one-story ranch house and shed in the southwestern portion and the Herb Fritz House in the northwestern portion, which includes a two-story folk Greek Revival style house and barn. Both residences have been abandoned since at least 2019. These buildings stand outside the Project Grading Area and will not be physically impacted. Furthermore, most views between the historic buildings and the Project will be obstructed by intervening dense tree cover. Research has not uncovered information that indicates the residents or occupants made contributions significant to history, nor have any significant events occurred there.

USGS topographic maps published since 1995 generally omit several feature classes that historically have been denoted, including recreational trails, pipelines, power lines, survey markers, many types of boundaries, and many types of buildings (schools, churches). The maps are no longer field verified, and therefore also lack indications of building locations and new construction since the previous publication. The Dunes Golf Course is not indicated on any of the reviewed maps.

Aerial photographs taken between 1936 and 2021 confirm much of the historical information provided in maps and atlases. The earliest photograph from 1936 labels the CBQ Railway, and Grey Cloud Trail, the slough, Lower Grey Cloud Island, and Mississippi River are all evident. A small farmstead is set at the northwest corner of the Project, with a house, barn, and at least two auxiliary structures. The unofficial roadway through the southern portion of the Project is evident in photographs through 1991, but only faintly in 1936. Because of their position within woodlands, the buildings indicated in contemporary topographic maps are not easily discernible. Photographs reveal the golf course was constructed between 1991 and 1997, and the Project Area has undergone few changes since then.

Herb Fritz House

In historical maps since at least 1899 and in aerial photographs since 1936, a small farmstead is depicted at the northwest corner of the Project, with a house, barn, and at least two auxiliary structures. In 2021, New History (NH) conducted an historical evaluation for the extant Herb Fritz House and barn at 10301 Grey Cloud Trail (WA-CGC-034). It is believed the house was constructed between 1850 and 1886, and it is possible the barn was built during that same period. For several decades after the homestead was established, it was "associated with dozens of acres of surrounding farmland" (NH:1). The house has "experienced several alterations since its construction," including stucco cladding that obscures the original limestone walls, a one-story addition and shed-roof dormers, and removal of the front portico. The barn is in "poor condition [but] appears to retain much of its original materials, design, and workmanship" (NH:12) The evaluation found that the property may be eligible for local designation because of its "association with Cottage Grove's history as a rural, agricultural community" and because it is "a unique local example of limestone building construction." The report did not provide a recommendation of NRHP evaluation, rather recommending that "additional information is needed to assess the property's eligibility for the National Register" and noted that "alterations to integrity may pose a challenge to NRHP listing" (NH:13). The 2.75-acre parcel was purchased by the adjacent golf course landowner (Dunes LLC) in 2019.

The Herb Fritz House has been vacant since at least 2019. Alterations that have affected its integrity include side and dormer additions, stucco and vinyl lap siding, replacement windows and doors. The barn has a sunken roof and is showing signs that its structure has been

compromised. The Herb Fritz House is recommended not eligible for listing in the NRHP, but additional research could yield information that changes that finding.

Dunes Golf Course

In 1992, the Project Area was redeveloped from its historical agricultural use into an 18-hole golf course called Mississippi Dunes. The "development of the golf course in the 1990s included the mass grading of the site that converted the site from its historical use for agricultural production into a manicured landscape that includes a series of greens and fairways, clubhouse and driving range" (Cottage Grove [CG] 2021:26). Mississippi Dunes golf course operated until 2017 after its clubhouse was destroyed by fire (Shaw 2022). In 2021, an Environmental Assessment Worksheet (EAW) and an historical evaluation report were prepared in association with the proposed Project. In February 2022, the City of Cottage Grove "approved the former Mississippi Dunes Golf Course EAW finding that no environmental impact statement is required" (CG 2021:62).

5.5.1 Environmental Assessment Worksheet

An EAW and an historical evaluation report have been prepared in association with the proposed Project. In 1992, the Project Area was redeveloped from its historical agricultural use into an 18-hole golf course. The Mississippi Dunes golf course operated until 2017, when its clubhouse was destroyed by fire (Pioneer Press 2022). The 2021 EAW notes that "development of the golf course in the 1990s included the mass grading of the site that converted the site from its historical use for agricultural production into a manicured landscape that includes a series of greens and fairways, clubhouse and driving range" (CG 2021:26).

Twenty-three boring tests found that "limestone bedrock was generally found across the entire Project Area and was encountered between 7 and 18 feet below the surface" (CG 2021:15). The EAW and master site plans show that the "Project will disturb approximately 110 acres of the Project Area and include grading, grubbing, and tree clearing." In the southern portion of the Project Area, approximately 37 acres "encompassing the Mississippi River frontage that includes a significant portion of the identified Forest area [...] will remain undisturbed." Twelve acres in the southeast corner of the Property may potentially be sold to the MnDNR and "incorporated as part of the [adjacent Grey Cloud Dunes Scientific and Natural Area (SNA)] into perpetuity." The Project's development activities will be set back "more than 300 feet from the river" (CG 2021:28-29). The EAW's Findings of Fact and Record of Decision includes the draft EAW's SHPO correspondence, which noted that "it is reasonable to believe that the Mississippi Dunes project area may also contain archaeological resources given its proximity to these documented sites [Grey Cloud Island]" and that "the majority of archaeological sites in the state have not been recorded. A lack of documented resources on the project site should not be taken as an assurance that such resources do not exist" (CG 2022:7). In response to the comment, it was noted that "given the disturbed nature of the site the City does not believe a Phase I Archaeological reconnaissance study is warranted in the disturbed areas. The City will require the Project Proposer to include a reference within the construction contingency plan regarding proper steps the contractor must take if anything is found on-site once site work commences." Additionally, "the area that is planned as open space, natural area, and park adjacent to the Mississippi River is the area that may not have experienced significant alterations during the golf course construction. A Phase I Archaeological Survey will be completed within any development areas that have not previously been disturbed" (CG 2022:7).

6.0 Field Investigations

6.1 Archaeology

Based on the information obtained during the literature review and the comment that the City did not believe a study was warranted in the disturbed areas, Mr. Sather and Mr. Grohnke, assisted by Environmental Intern Gentri Hansen, made an initial site visit on June 16, 2022 to determine the extent of disturbance within the APE. The Project Area was walked over and visually inspected. The entirety of the golf course had obvious and significant disturbance from the landscaping efforts associated with the construction of the golf course. Soil probes were placed intermittently to confirm disturbance in the soils (**Exhibit 2**). Disturbances indicated included the removal of top-soils to facilitate the creation of fairways, tee-boxes, and greens. Soil probes excavated within the fairways exhibited a thin layer of top-soil, associated with the maintained turf, overlaying a sandy substrate. The boundary between the turf and the substrate was sharp and showed no evidence of natural soil development.

Associated landscaping features include the manufacture of dune-like mounds, water and sand hazards, clubhouse (razed), maintenance buildings, parking lots, and golf cart trails. No undisturbed areas with the potential for intact soils were observed within the area that had previously served as active portions of the golf course.

Several areas of level land within the golf course have been cultivated and used as feed plots for hunting (**Exhibit 2**). These locations had ground surface visibility ranging from 85% to 100% and were subjected to pedestrian visibility at 15-meter interval transects. Additional areas of sparse vegetation were also encountered throughout the area and surveyed with pedestrian survey when applicable.

The far western portion of the APE is wooded and outside of the golf course proper. Due to the possibility of intact soils, this area was reviewed by Mr. Sather and Mr. Grohnke on August 16, 2022. A visual inspection of the area suggests that most of the area is generally of low potential for unrecorded archaeological resources as it is not in close proximity to water sources, the topography suggests lower archaeological potential in most locations, and there are multiple disturbances from modern residences, outbuildings, roads, as well as landscape modifications possible associated with development of the golf course.

One area of higher potential was encountered. A ridge was observed in the wooded area in the very southwest portion of the APE. Shovel tests were excavated along this ridge at 15-meter intervals. Shovel test results are detailed in Table 6-1 below. Soils observed indicated that modification to the surface has occurred in the past. The upper soil layers were loose and unconsolidated and appeared to have been recently disturbed. While situated beneath a canopy of older trees, the soils did not appear as a forested soil. Rather, the upper portion of the soil profile was heavily mottled and suggestive of a mixture of top- and sub-soils in discreet and sharply defined lenses. The subsoils consisted of brown, dark brown, and red sands that were segregated from the top-soil by a sharp boundary. This soil structure was observed in all excavated shovel tests.

Table 6-1: Shovel Test Results

ST # 1	**Location:**	Northern part of ridge in SW corner of APE	**Result:** NEGATIVE
Depth		**Soil Horizon and Description**	
0 to 17 cmbs	AE	Dark brown sand. Disturbed. No compaction in topsoil.	
17 to 58 cmbs	B	Brown, dark brown, red sands	
58 to 80 cmbs	C	Sand	
ST # 2	**Location:**	Along ridge, 15m SE of ST #1	**Result:** NEGATIVE
Depth		**Soil Horizon and Description**	
0 to 15 cmbs	AE	Dark brown sand. Disturbed. No compaction in topsoil.	
15 to 51 cmbs	B	Brown, dark brown, red sands	
51 to 73 cmbs	C	Sand	
ST # 3	**Location:**	Along ridge, 15m SE of ST #2	**Result:** NEGATIVE
Depth		**Soil Horizon and Description**	
0 to 19 cmbs	AE	Dark brown sand. Disturbed. No compaction in topsoil.	
19 to 52 cmbs	B	Brown, dark brown, red sands	
52 to 64 cmbs	C	Sand	
ST # 4	**Location:**	Along ridge, 15m SE of ST #3	**Result:** NEGATIVE
Depth		**Soil Horizon and Description**	
0 to 26 cmbs	AE	Dark brown sand. Disturbed. No compaction in topsoil.	
26 to 60 cmbs	B	Brown, dark brown, red sands	
60 to 80 cmbs	C	Sand	

Representative photographs of the APE can be viewed in **Appendix B**. All of the former golf course and much of the western wooded area has been heavily modified and subjected to significant ground disturbance limiting the possibility of intact archaeological deposits. No archaeological resources were observed during the survey.

7.0 Summary and Recommendations

The archaeological survey for Mississippi Landing identified no archaeological resources. The majority of the Project Area is highly disturbed by the construction of the golf course and related infrastructure. It is recommended that no additional cultural resources investigations are warranted in the current APE and it is recommended that the Project be allowed to proceed as planned.

Westwood stresses that if construction plans are altered to include areas not previously surveyed, those locations must be examined for cultural resources. Although an archaeological survey was completed, the possibility of unidentified resources remains. Procedures to be followed in case of an inadvertent discovery are detailed in the attached Unanticipated Discoveries Plan (**Appendix C**). If unrecorded archaeological sites are discovered during construction, all ground-disturbing activities in the area should stop and archaeologists at

Westwood should be contacted. Further, if human remains are encountered during construction activities, all ground disturbing activity must cease and local law enforcement must be notified. *Minnesota Statute 307.08, the Private Cemeteries Act, prohibits the intentional disturbance of human burials.*

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Exhibits

Appendix A

Historical Maps and Aerial Photographs

Appendix B

Representative Photographs of Area of Potential Effect

Appendix C

Unanticipated Discoveries Plan

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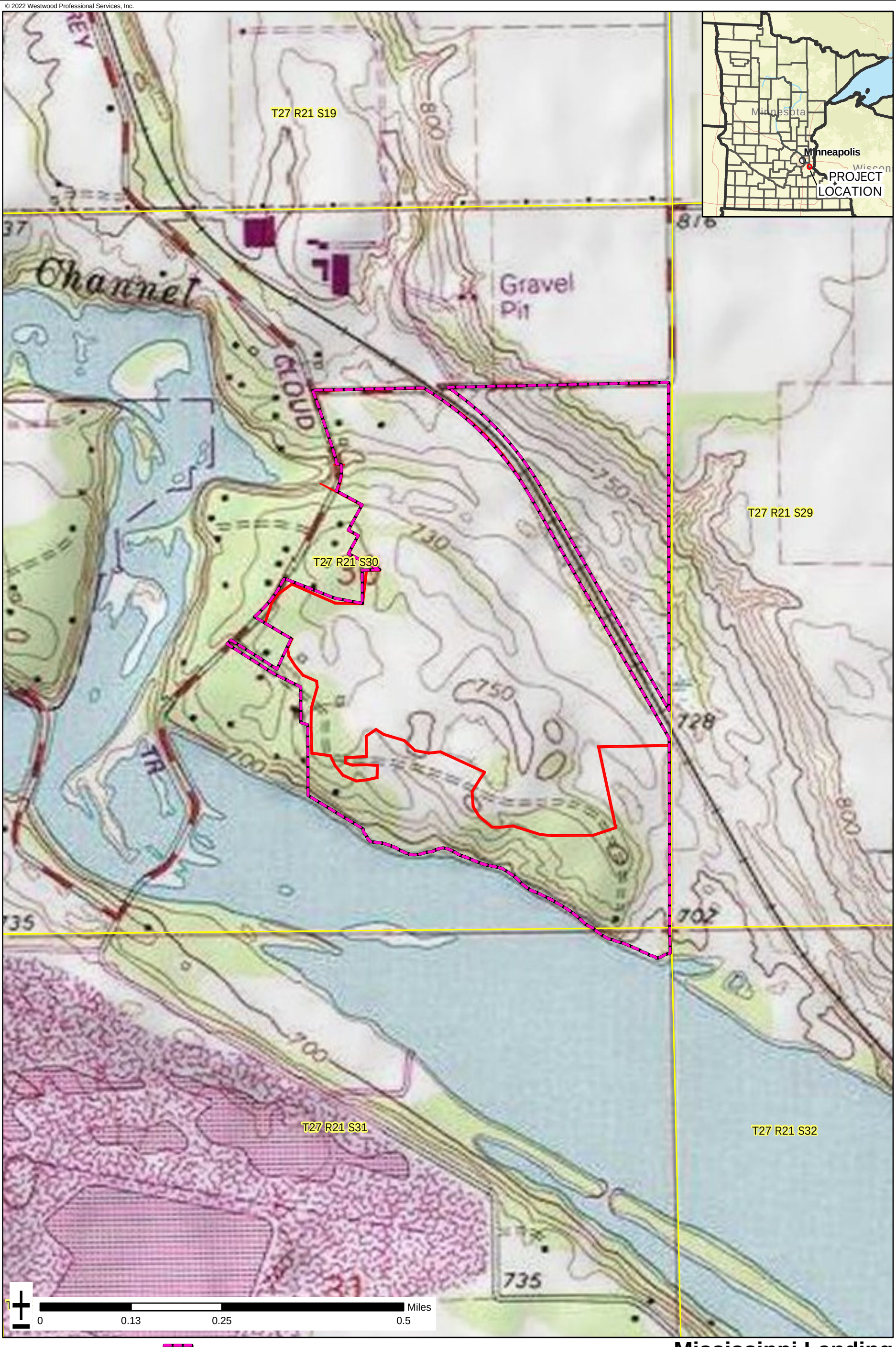

Data Source(s): Westwood (2022); USGS topographic maps (2013); ESRI WMS National Geographic & World Streets Basemaps (Accessed 2022); Census Bureau (2020). MN OSA and SHPO data (April 2022)

- Project Area
- APE/Project Grading Area
- Section Boundary

Mississippi Landing Residential Development

Cottage Grove, Washington County, Minnesota

Project Location

EXHIBIT 1

Westwood

Phone (952) 937-5150
Fax (952) 937-5822
Toll Free (888) 937-5150

12701 Whitewater Drive, Suite #300
Minnetonka, MN 55343
westwoodps.com

Westwood Professional Services, Inc.

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SP A
SP B
SP C
SP D
SP E
SP F
SP G
SP H
ST 1
ST 2
ST 3
ST 4

0 50 100 200 Meters

Data Source(s): Westwood (2022); USGS topographic maps (2013); ESRI WMS National Geographic & World Streets Basemaps (Accessed 2022); Census Bureau (2020). MN OSA and SHPO data (April 2022)

- Project Area
- APE/Project Grading Area
- Pedestrian Survey
- Soil Probe
- Shovel Test

Westwood

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Westwood Professional Services, Inc.

Mississippi Landing Residential Development

Cottage Grove, Washington County, Minnesota

Archaeological Investigations

EXHIBIT 2

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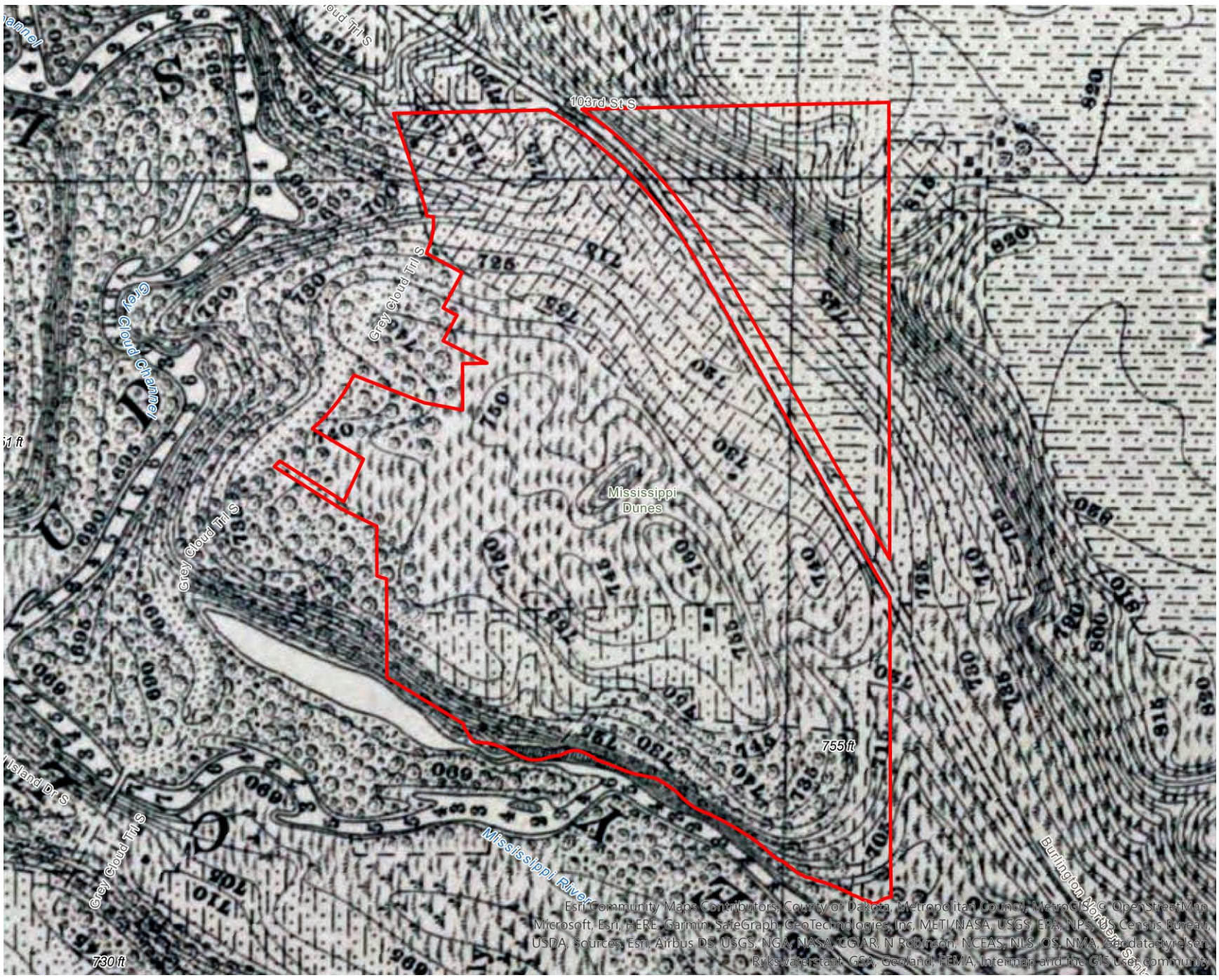
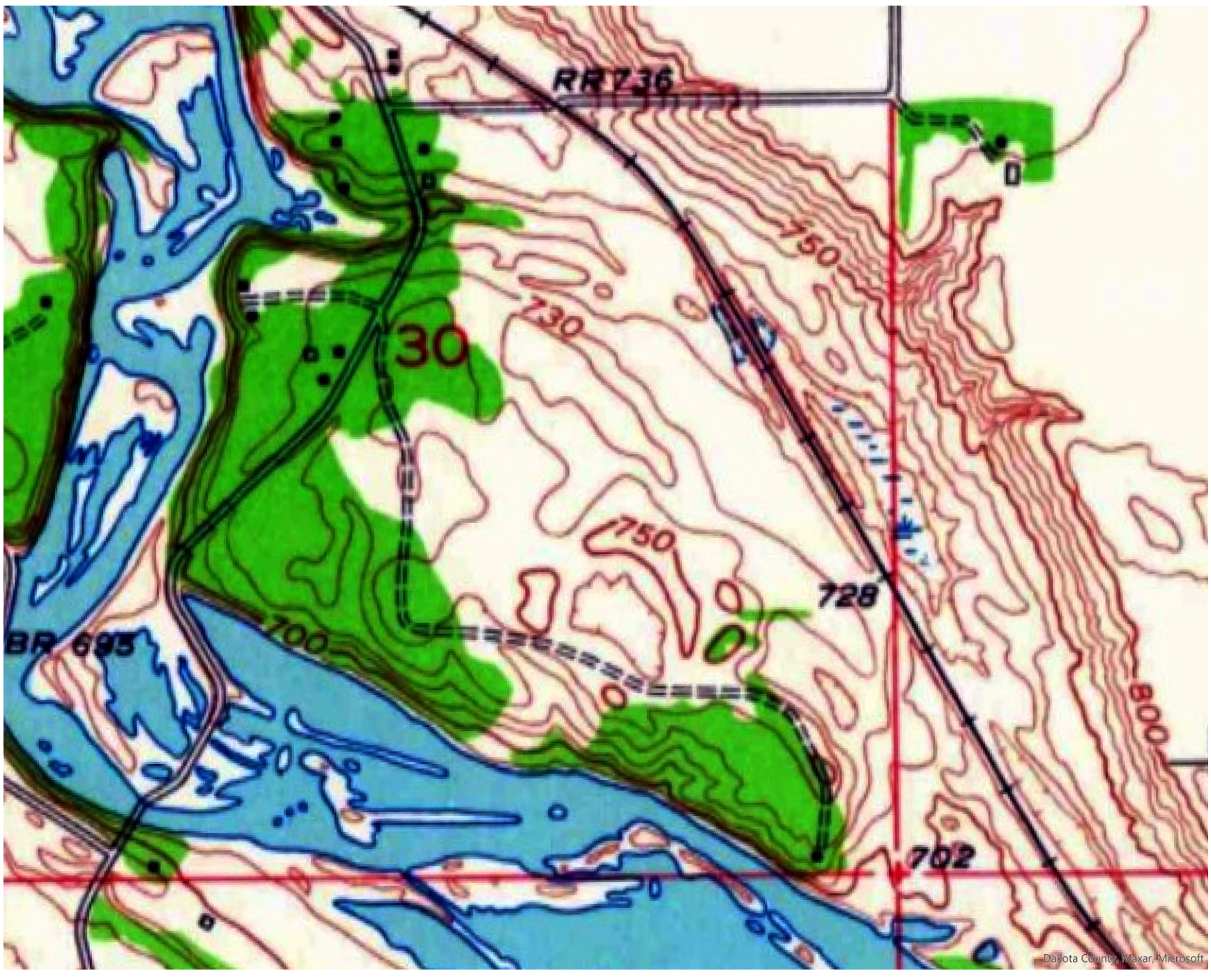
CRM_Exhibit2_Field Results - Miss Landing Archy Field Results | 8/29/2022 2:21 PM | SJNelson

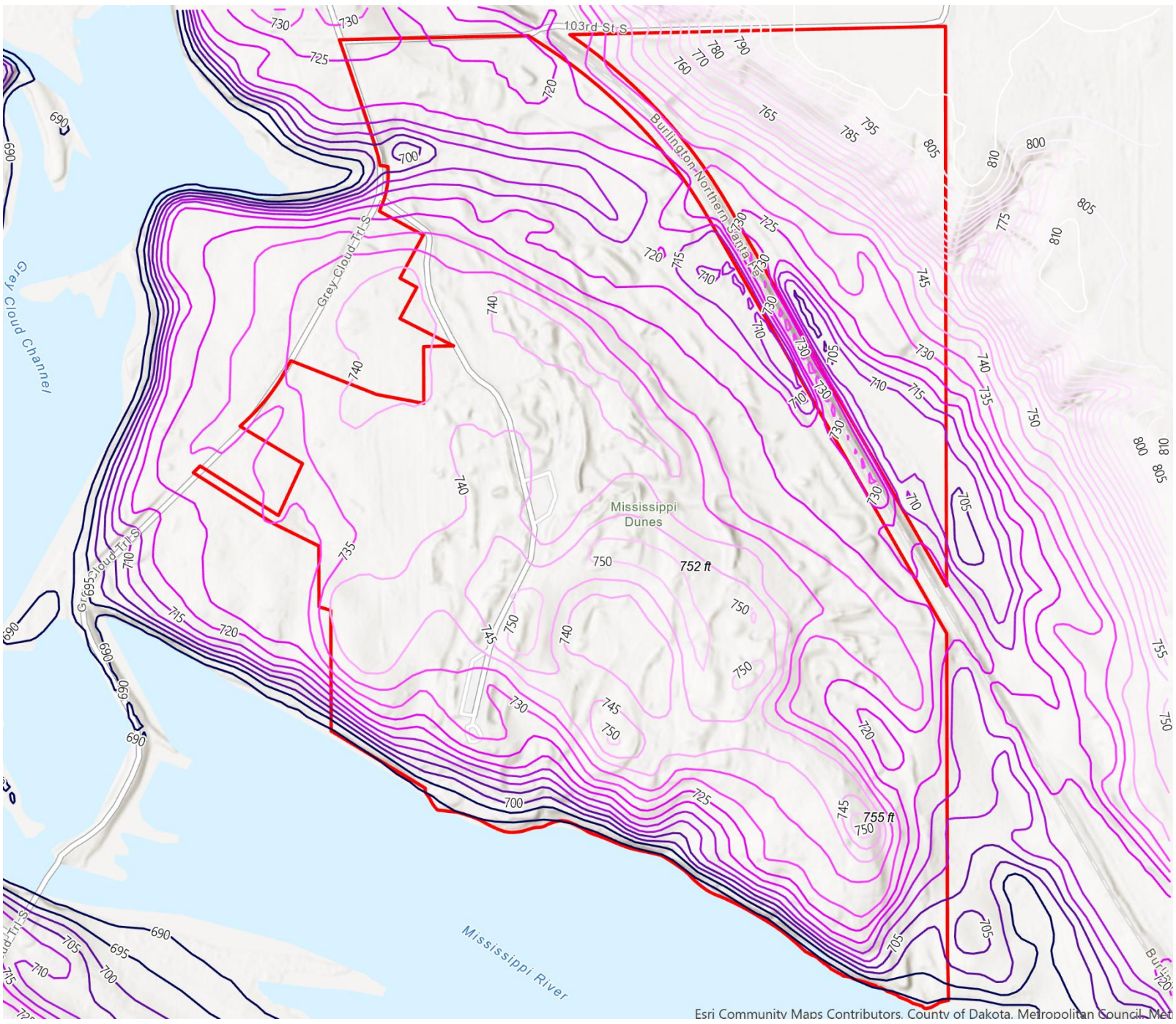
1879-99 Map of Mississippi River (Mississippi River Commission)



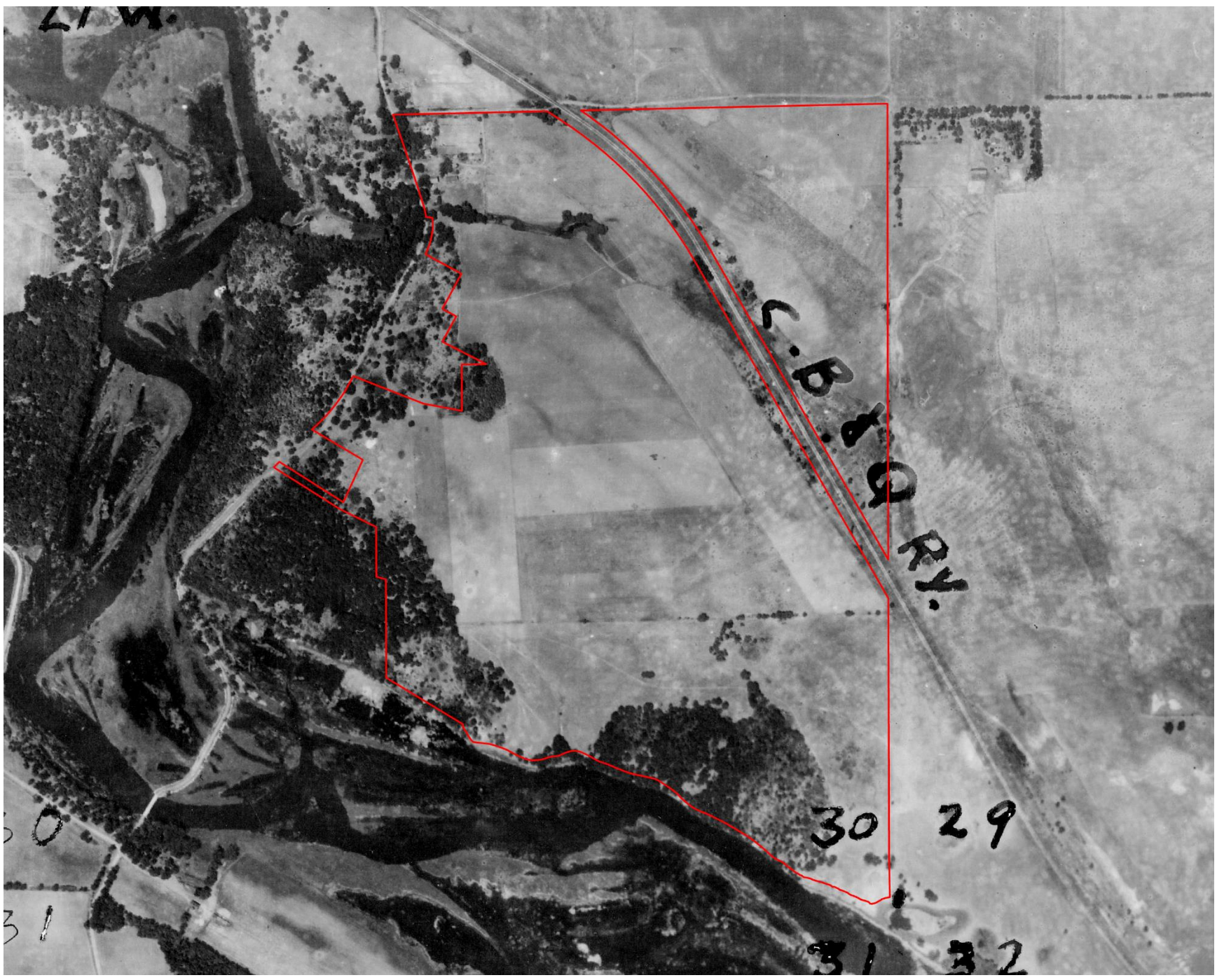
1950 7.5’ St. Paul Park USGS topographic map



Current topo and contours (Esri, USGS)



1936 aerial photo

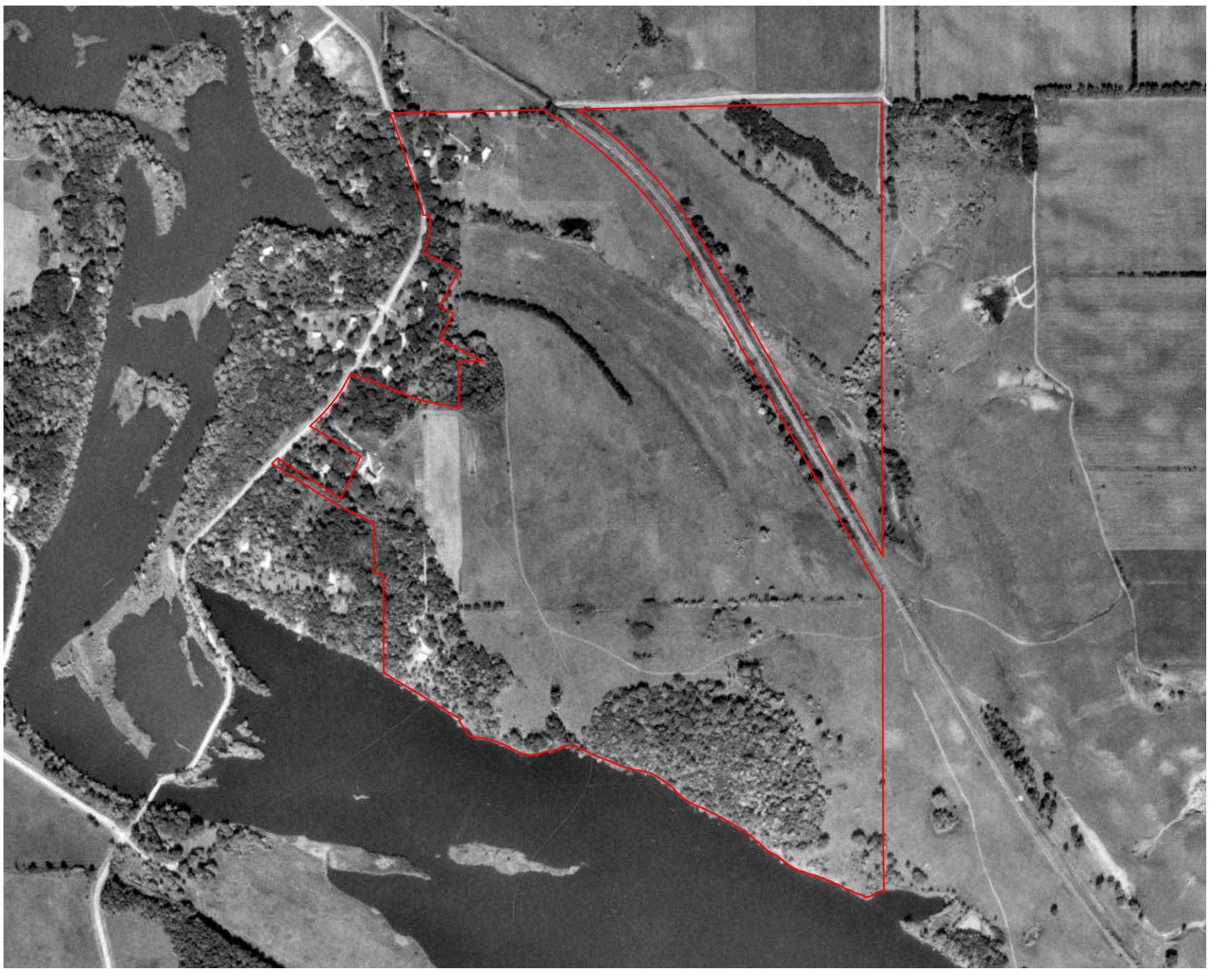


1947 aerial photo

1957 aerial photo

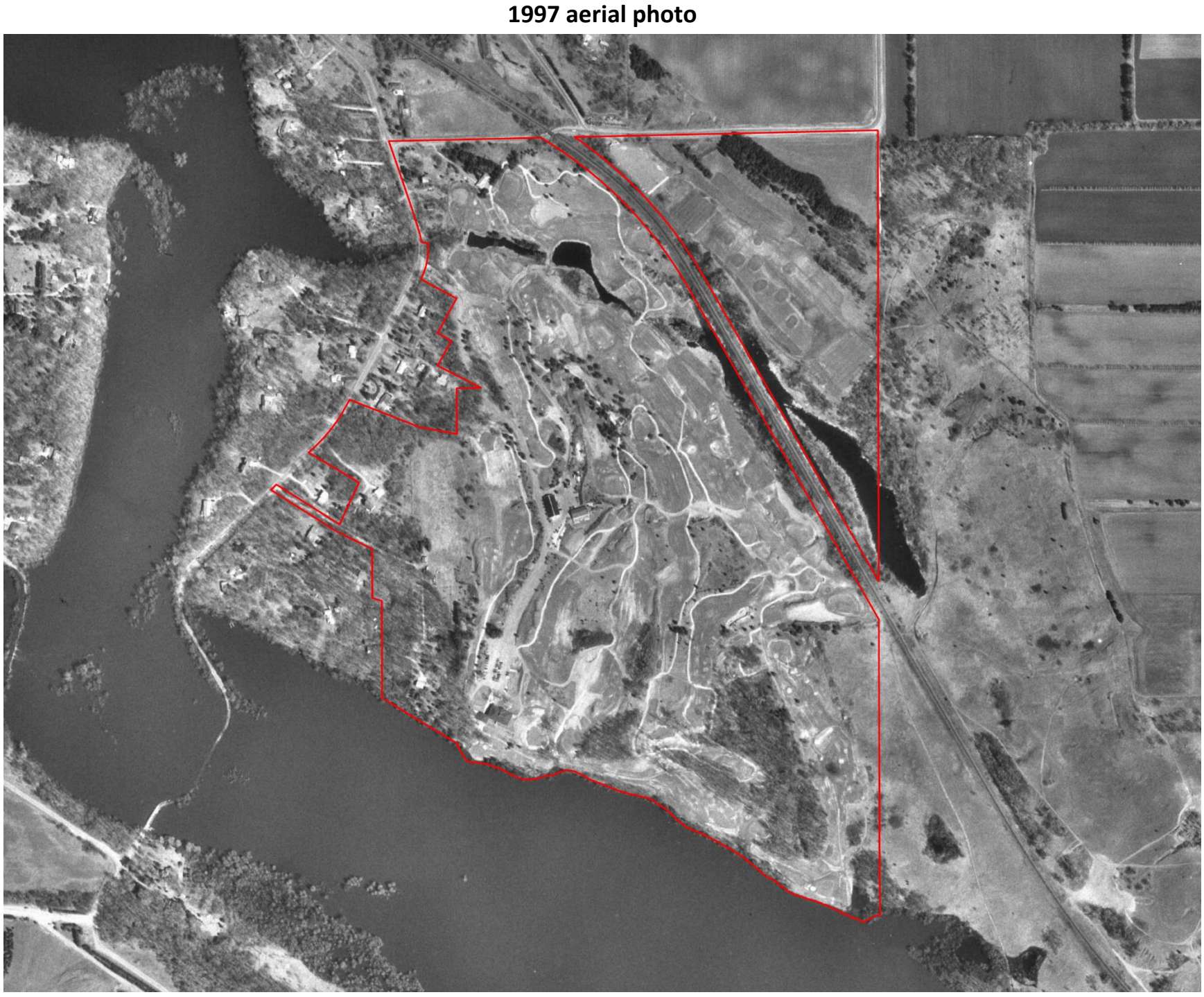
1964 aerial photo

1970 aerial photo



1991 aerial photo

1997 aerial photo



2006 aerial photo

2010 aerial photo

2020 aerial photo

Mississippi Dunes Master Plan (November 2021)

➔ **NORTH**

Photo 1. Northeastern portion of Dunes Golf Course, facing east to Burlington Northern Santa Fe Railroad

Photo 2. Northeastern portion of Dunes Golf Course, facing south

Photo 3. Northeastern portion of Dunes Golf Course, facing west

Photo 4. Northeastern portion of Dunes Golf Course, facing north

Photo 5. Pedestrian Survey area. Southeastern portion of Dunes Golf Course, facing south

Photo 6. Southern portion of Dunes Golf Course, facing north

Photo 7. Southern portion of Dunes Golf Course, facing south towards Mississippi River

Photo 8. Pedestrian Survey area. West-central portion of Dunes Golf Course, facing south

Photo 9. Pedestrian Survey area. West-central portion of Dunes Golf Course, facing east

Photo 10. Area of high potential near ridge, facing west

Photo 11.
Shovel Test #1

Photo 12.
Facing south along ridge at Shovel Test #1

Photo 13. Facing southeast along ridge at Shovel Test #2

Photo 14.
Shovel Test #3

Photo 15.
Facing southeast along ridge at Shovel Test #3

Photo 16.
Shovel Test #4

Photo 17. Facing southeast at Shovel Test #4

b

UNANTICIPATED DISCOVERY PLAN FOR CULTURAL RESOURCES

Mississippi Landing Residential Development

City of Cottage Grove, Washington County, Minnesota

MAY 23, 2022

PREPARED FOR:

Pulte Homes of Minnesota, LLC
7500 Flying Cloud Drive, Suite 670
Eden Prairie, MN 55344

PREPARED BY:

Westwood

Westwood

Unanticipated Discovery Plan for Cultural Resources

Mississippi Landing Residential Development

City of Cottage Grove, Washington County, Minnesota

Prepared For:

Pulte Homes of Minnesota, LLC
7500 Flying Cloud Drive, Suite 670
Eden Prairie, MN 55344

Prepared By:

Ryan Grohnke
Dean Sather
Westwood Professional Services
12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343
(952) 937-5150

Project Number: 0030343.00
Date: May 23, 2022

Table of Contents

1.0 Introduction 1

2.0 Procedures for Unanticipated Discoveries 1

2.1 Archaeological Resources 1

2.2 Human Remains 1

1.0 Introduction

Pulte Homes of Minnesota, LLC (Pulte) intends to construct the Mississippi Landing Residential Development (Project) in the City of Cottage Grove, Washington County, MN. On behalf of Pulte, Westwood Professional Services, Inc. (Westwood) prepared this plan to establish procedures to be followed if unrecorded archaeological resources or human remains are discovered during construction of the proposed Project. This plan is also being prepared to satisfy a request by the City for "contingency plans regarding proper steps the contractor must take if anything is found on-site once site work commences."

2.0 Procedures for Unanticipated Discoveries

If any employee working on the Project, including, but not limited to Project staff, Project construction contractor, or a Project subcontractor believes they have found suspected archaeological resources or human remains, all work within 200 feet of the vicinity of the find site will cease. The employee will notify the construction superintendent, who will secure the area by moving employees away from the discovery. Additional procedures differ regarding archaeological resources and human remains, as described below.

2.1 Archaeological Resources

The construction superintendent will contact Westwood's Cultural Resources Manager who will notify Pulte of the discovery. In cooperation with the archaeological Principal Investigator, the Cultural Resources Manager will obtain additional information from the construction superintendent to determine the significance and integrity of the discovery and, if considered necessary, a Cultural Resources Specialist will travel to the site as soon as feasible. If the discovery is not considered significant, work may continue and a letter detailing findings will be submitted to Pulte within three business days. If the site is determined potentially significant, a Cultural Resources Specialist will consult with Pulte on avoidance options, an archaeological site form will be submitted to the Office of the State Archaeologist (OSA), and an update will be provided to the MN State Historic Preservation Office (SHPO). If site avoidance is not possible, consultation will be initiated with the SHPO and/or OSA regarding appropriate management of the cultural resources.

Contact Information

Westwood Cultural Resources Manager
Ryan P. Grohnke
Cultural Resource Manager
Westwood Professional Services, Inc.
Direct: (952) 906-7403
Mobile: (612) 209-3352
ryan.grohnke@westwoodps.com

2.2 Human Remains

Minnesota Statute 307.08, the Private Cemeteries Act, prohibits the intentional disturbance of human burials.

If human remains are discovered all ground-disturbing activities in the area of the find site will cease and all equipment will be immediately shut down and left in place. The remains and any associated grave goods, mortuary items, or artifacts proximal to the suspected remains will be left as they were discovered. The construction superintendent will immediately contact law enforcement at the number given below, and law enforcement will coordinate with the appropriate agencies. If the human remains are older than 50 years old, the Minnesota Office of the State Archaeologist (OSA) must be contacted. Human remains will be treated with respect and equipment will not be moved until clearance is given by the Minnesota Indian Affairs Council (MIAC) and/or the OSA.

Immediately after notifying local law enforcement, the construction superintendent will contact the Cultural Resources Manager at Westwood, who will coordinate with Pulte. If necessary, the Cultural Resources Manager and/or the Principal Investigator will travel to the site as soon as feasible to evaluate the extent of the burial site and any affiliated cultural resources. The Cultural Resources Manager and Principal Investigator will coordinate between Pulte, law enforcement, and the OSA, to ensure all laws are followed and help resolve the situation.

Contact Information

Cottage Grove Police Department
651-458-2850

Westwood Cultural Resources Manager
Ryan P. Grohnke
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Westwood Professional Services, Inc.
Direct: (952) 906-7403
Mobile: (612) 209-3352
ryan.grohnke@westwoodps.com

If non-emergency numbers do not work, please dial 911.

b

UNANTICIPATED DISCOVERY PLAN FOR CULTURAL RESOURCES

Mississippi Landing Residential Development

City of Cottage Grove, Washington County, Minnesota

MAY 23, 2022

PREPARED FOR:

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7500 Flying Cloud Drive, Suite 670
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If non-emergency numbers do not work, please dial 911.

Mississippi Landing Project - Rare Plant Survey Report

Prepared for:
Pulte Group
11097 Dane Dr.
Eden Prairie, MN 55347

August 14, 2022

Prepared by:
Midwest Natural Resources, Inc.
1032 West 7th Street, Suite 150
St. Paul, Minnesota 55102
www.mnrinc.us

1032 Seventh Street West, Suite 150 | Saint Paul, MN 55102 | mnrinc.us | 612.310.6260

MIDWEST NATURAL RESOURCES

Mr. Dean R. Lotter
Manager of Land Planning & Entitlement
Pulte Group
11097 Dane Dr.
Eden Prairie, MN 55347

August 14, 2022

Mr. Lotter,

Midwest Natural Resources, Inc. (MNR) is pleased to provide the following rare plant survey report for the Mississippi Landing project site located at the former Mississippi Dunes Golf Links golf course in Cottage Grove, Minnesota (**Map 1**).

Project Limits and Existing Background Data

The 165-acre site includes the former golf course, associated golf course infrastructure, and several remnant natural areas. Prior to survey efforts, two Minnesota Department of Natural Resources (DNR) datasets were examined to identify the presence of biologically significant natural communities within the project area, specifically the Sites of Biodiversity Significance (SOBS) data layer and the Native Plant Community (NPC) data layer (**Table 1**).

Table 1. Native Plant Community and Sites of Biodiversity Significance Results

SOBS Site	SOBS Ranking	DNR Mapped NPC	NPC State Rank[1]	DNR Condition Rank
Grey Cloud Dunes West	High	UPs13a - Dry Barrens Prairie (Southern)	S1S2	BC
Cottage Grove 29	Moderate	UPs13a - Dry Barrens Prairie (Southern)	S1S2	BC
Cottage Grove 30 Southeast	Moderate	FDs37b - Pin Oak - Bur Oak Woodland	S3	NA
Cottage Grove 30	Below	None	NA	NA

[1]S1 = Critically imperiled, S2 = Imperiled, S3 = Vulnerable to Extirpation

The Sites of Biodiversity Significance data layer indicates four separate designated sites ranging from high to below in quality ranking (**Figure 1**). These rankings were assigned before the development of the golf course and are not reflective of current conditions in locations that have since been developed/altered. Sites with the designation of High are deemed as having "very good quality occurrences of the rarest species, high-quality examples of rare native plant communities, and/or important functional landscapes." Sites with a Moderate ranking include "occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery." And sites with a status of Below are "below minimum biodiversity threshold for statewide significance. These sites lack occurrences of rare species or natural features or do not meet MBS standards for Outstanding, High, or Moderate rank. These sites may include areas of conservation value at the local level, such as habitat for native plants and animals, corridors for animal movements, buffers surrounding high-quality natural areas, or areas with high potential for restoration of native habitat."

The site additionally includes three areas with mapped native plant communities (**Figure 2**). It appears that these features were mapped in 1987, prior to the establishment of the golf course. Two of these mapped

Figure 1. Sites of Biodiversity Data Layer: Dark green represents a status of High quality, light green represents Moderate quality, and grey represents below quality. The survey area is outlined in red.

areas were classified as the Dry Barrens Prairie (Southern) community, an S1S2 ranked native plant community. This ranking infers that this community type is viewed as critically imperiled to the lesser status of imperiled. The DNR additionally assigned a condition rank of BC for both mapped areas. The B-rank infers good ecological integrity (modest degradation), whereas the C-rank infers fair ecological integrity (strong evidence of human-caused degradation). The split designation indicates conditions.

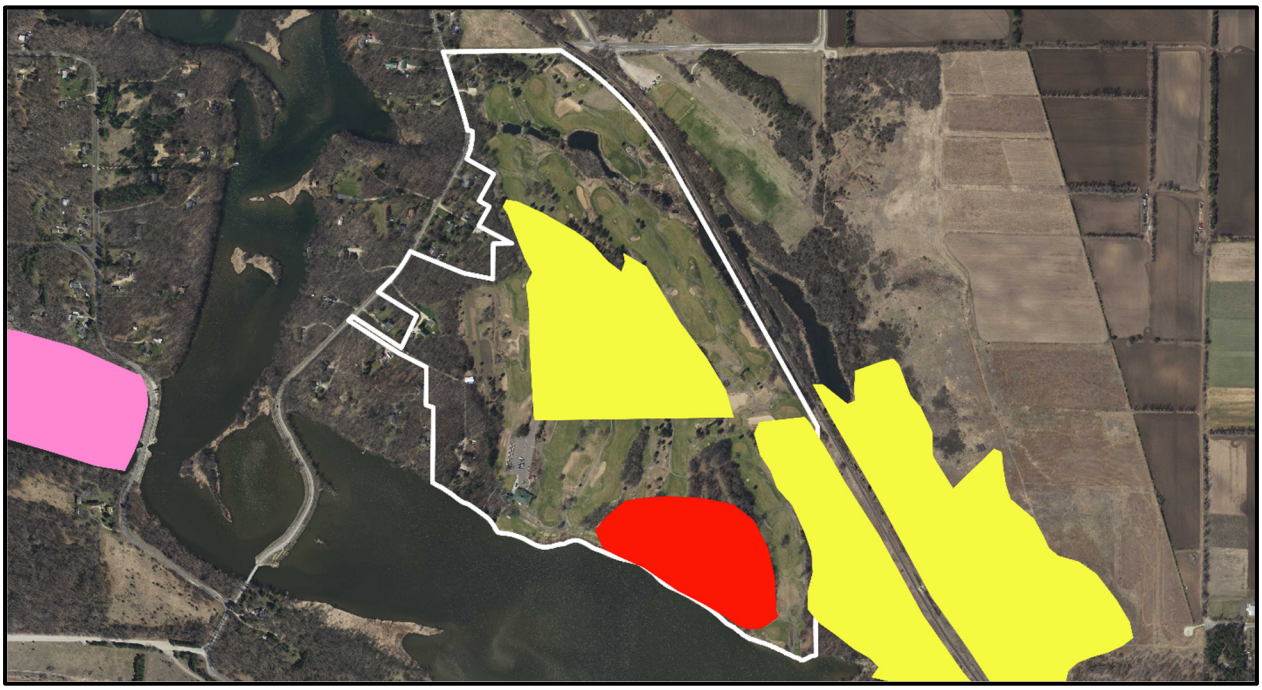

Figure 2. Native Plant Community Data Layer: Red represents the FDs37b community type and yellow represents the UPs13a community type. The survey area is outlined in white.

between the two ranks. The third area mapped was classified by the DNR as a Pin Oak – Bur Oak Woodland community, which is an S3 ranked native plant community, indicating a vulnerability to extirpation. The DNR did not assign this particular community a condition rank.

Methods

Before conducting field surveys, MNR submitted a rare plant survey protocol to the DNR Endangered Species Coordinator (**Appendix A**). Survey efforts were implemented by Otto Gockman and the undersigned on May 19th and August 7th, 2022. Meander surveys were conducted throughout the entire site, focusing on those areas that remain undeveloped. A general species list was compiled, and this is provided in **Appendix B**.

Observed rare plant locations were delineated spatially using points to mark the extent of each given population; single, isolated individuals or clusters of plants were marked with lone points. The number of individuals present was either counted or estimated, and that information is included in the associated attribute table. All spatial data collected during this effort was captured using a sub-meter GPS unit (Trimble® GeoXT 6000). Data was collected in WGS84 and post-processed in ArcMap using Trimble Positions Desktop.

Results

As mentioned, this site was partially developed after the DNR had originally conducted surveys as part of the County Biological Survey effort. The mapped upland prairie community in the central portion of the project area has since been developed as part of the Mississippi Dunes Golf Links golf course, as shown in **Figure 3**. Only a small segment of this overall component appears to have been left untouched. The remnant is dominated by the non-native red fescue (*Festuca rubra*) but includes western ragweed (*Ambrosia psilostachya*), partridge pea (*Chamaecrista fasciculata*), Schweinitz's nut sedge (*Cyperus schweinitzii*), silky prairie clover (*Dalea villosa*), Scribner's panic grass (*Dichanthelium oligosanthes*), round-headed

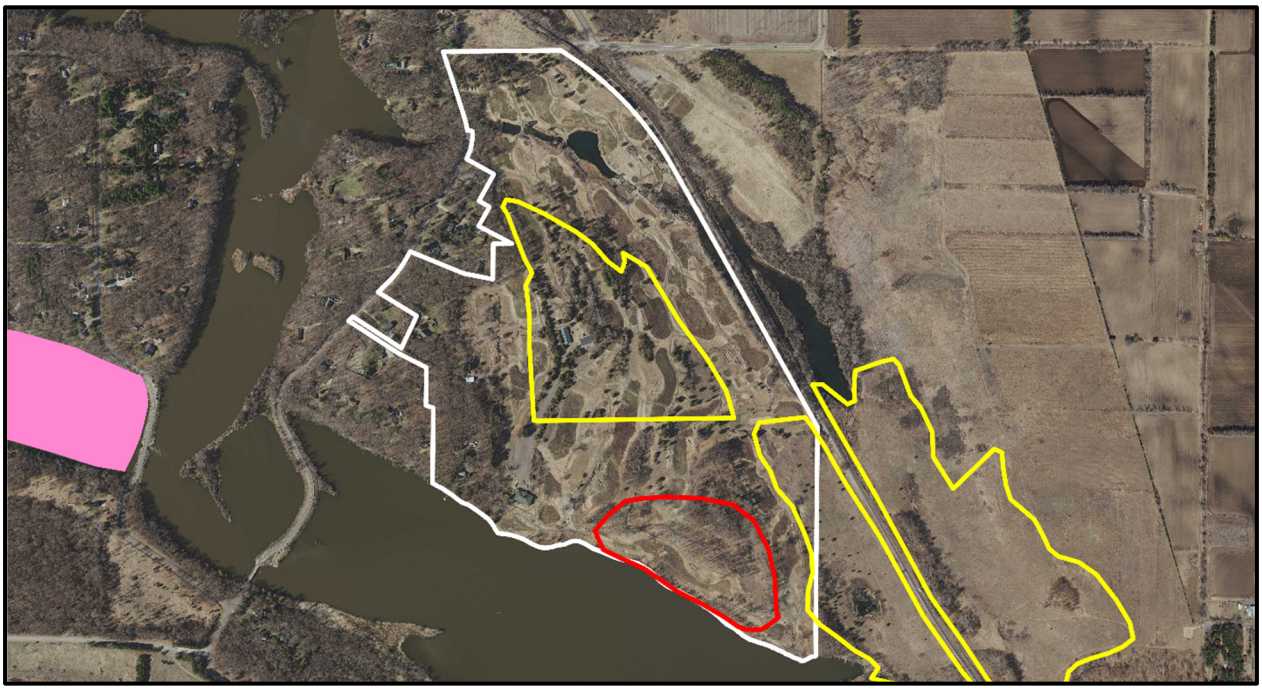

Figure 3. 2016 aerial image with the mapped UPs13a community type in yellow and the FDs37b community type in red. The survey area is outlined in white.

bush clover (*Lespedeza capitata*), hairy beadgrass (*Paspalum setaceum*), and sand dropseed (*Sporobolus cryptandrus*). This location would represent a D-ranked community condition rank based on the dominance of a non-native grass species and limited native species diversity.

The other mapped upland prairie component in the southeast portion of the site still remains intact. This community includes yarrow (*Achillea millefolium*), base-branched three-awn (*Aristida basiramea*), side oats (*Bouteloua curtipendula*), hairy grama (*Bouteloua hirsuta*), sun-loving sedge (*Carex inops*), partridge pea, silky prairie clover, Carolina delphinium (*Delphinium carolinianum*), linear-leaved panic grass (*Dichanthelium linearifolium*), prairie ragwort (*Packera plattensis*), tall cinquefoil (*Potentilla arguta*), little bluestem (*Schizachyrium scoparium*), and bearded birdfoot violet (*Viola palmata*). Also documented in this portion of the site is the state-threatened seaside three-awn (*Aristida tuberculosa*) (**Image 1**). The extent of this population is illustrated in **Map 2**. The originally assigned BC rank is appropriate based on the current field conditions and this area would benefit from future management.

Image 1. The state-threatened seaside three-awn (*Aristida tuberculosa*).

Additionally, a portion of the mapped fire-dependent forest had also been developed. It appears that this community is not a fire-dependent forest but rather a mesic hardwood community. The canopy includes bitternut hickory (*Carya cordiformis*), hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanica*), bur oak (Quercus macrocarpa), and red oak (*Quercus rubra*). The shrub layer is sparse to patchy with tartarian honeysuckle (*Lonicera tatarica*) and chokecherry (*Prunus virginiana*). Other species observed include common enchanter's nightshade (*Circaea lutetiana*), white grass (*Leersia virginica*), Canada mayflower (*Maianthemum canadense*), Canada moonseed (*Menispermum canadense*), woodbine (*Parthenocissus vitacea*), and blue phlox (*Phlox divaricata*). This community was classified during our survey efforts as Sugar Maple - Basswood - (Bitternut Hickory) Forest (MHs39a) type, an S2 community. The condition of the community appears to be impacted due to fragmentation and inclusion of impervious trails. Furthermore, the persisting community lacks signs of the regeneration of canopy species, limited native species diversity, and earthworm invasion. This community's condition rank would range from a C rank to a CD rank.

The contemporary boundaries of the three communities are presented in **Figure 4** below. These boundaries are based on field findings along with photo interpretation.

Figure 4. 2016 aerial image with the revised Native Plant Community boundaries and classification. The mapped UPs13a community type is in yellow and the MHs39a community type is in green. The survey area is outlined in white.

In summary, 181 vascular plant species were observed during field efforts. Of these 181 species, only one state-listed species was observed, the seaside three-awn grass. Based on your current design concept, it does not appear that there will be any direct impacts to this population.

In closing, we appreciate the opportunity to assist you with this project and welcome any questions or comments. With your approval, we will send this report and associated rare species location data to the DNR for their records.

Respectfully submitted,

Scott A. Milburn, MS
Principal Botanist/Founder
Midwest Natural Resources, Inc.
612-310-6260 (mobile)

Source: OpenStreetMap, US Census Bureau, Date: 8/9/2022

0 0.25 0.5 Miles

Survey Site Location
Rare Plant Surveys
Mississippi Landing Project
Cottage Grove, Washington County, Minnesota

Map 1

Source: Metropolitan Council Aerial Imagery, 2020, MnGeo, MN Department of Natural Resources, US Census Bureau, Date: 8/9/2022

0 400 800 Feet

Map 2

Survey Results
Rare Plant Surveys
Mississippi Landing Project
Cottage Grove, Washington County, Minnesota

Appendix A – Survey Protocol

MIDWEST NATURAL RESOURCES

Ms. Lisa Joyal
Endangered Species Review Coordinator
Minnesota Department of Natural Resources
Ecological & Water Resources
500 Lafayette Road
St. Paul, MN 55155

March 11, 2022

Ms. Joyal,

Midwest Natural Resources, Inc. (MNR) will be conducting rare plant surveys for the proposed Mississippi Landing development project. The 165-acre Cottage Grove site, which includes multiple properties, is located in portions of Section 30 and 31 of Township 27 North and Range 21 West (**Figure 1**).

As you are aware, a Natural Heritage Information System (NHIS) review has identified Sites of Biodiversity Significance within the subject area along with the potential for state-listed species. Proposed surveys by MNR are limited to evaluating the mapped Sites of Biodiversity Significance and intact native plant communities as well as targeted surveys for rare plant species throughout the project site. Surveys pertaining to state-listed avian species are not planned due to the proposed timing of clearing activities which are slated to occur outside of the period of April 1 – August 15 mentioned in the DNR's NHIS letter. Furthermore, targeted surveys specific to the North American racer (*Coluber constrictor*), Leonard's skipper (*Hesperia leonardus*) and the regal fritillary (*Speyeria idalia*) are not proposed.

As stated, we are intending to evaluate all areas identified as Sites of Biodiversity Significance and any intact native plant communities on the site. Available spatial data suggests that there are four mapped areas identified as Sites of Biodiversity Significance and two native plant communities. The two native plant communities identified for the site are the FDs37b - Pin Oak - Bur Oak Woodland and UPs13a - Dry Barrens Prairie (Southern) communities. Current aerial imagery suggests that a significant amount of acreage has been converted to golf course, but some habitat still remains. We will note which areas have been entirely converted and also provide a condition ranking on those remaining native plant communities.

Additionally, the NHIS review specifically identifies four vascular plant species that have been documented in the vicinity of the project area. This list includes the state-threatened Louisiana broomrape (*Orobanche ludoviciana* var. *ludoviciana*) and seaside three-awn (*Aristida tuberculuosa*) along with purple sandgrass (*Triplasis purpurea* var. *purpurea*) and Hill's thistle (*Cirsium pumilum* var. *hilli*) which are species of special concern. We are planning an initial spring survey to assess habitats for state-listed species and to determine if there are intact native plant communities still present on the site. This initial survey will be conducted in mid-spring. A second visit is also planned and is anticipated to occur in late July or August. This specific timing will maximize the likelihood of observing seaside three-awn, though all of the target plant species will be identifiable at this time. At this point we believe that these two survey visits will suffice in evaluating the site for all state-listed plant species.

During field efforts, *Rare Species Survey Process* and the *Rare Plant Guidance* will be followed as required by the DNR. Survey will be conducted by one or multiple members of our staff approved to conduct rare plant surveys. Rare plant survey efforts will involve documenting all vascular plant species observed during

our collective visits. Rare plant species, if encountered, will be documented spatially using sub-meter GPS units (Trimble Geo 7X). Rare plant species documentation will include notes on habitat, associate species, number of individuals observed within each population documented, and representative photos. Voucher specimens will be made following the DNR's collection guidance procedure should the population allow for collecting, and this will be done under one of our collection permits.

A summary report will be produced at the conclusion of field efforts. This document will include information pertaining to survey methods, survey results, report figures/graphics, and appendices (species lists and representative photos). The report along with the GIS shapefile, associated spreadsheet, and notification that the voucher specimens have been verified by State Botanist Welby Smith.

In closing we ask for confirmation on the following items:

1. Based on the proposed timing of clearing activities being outside of the April 1 – August 15 time period, avian surveys are not required for this project.
2. Surveys for Special Concern insect/herpetological species are not required for this project.
3. Methods as defined above for rare plant survey efforts are approved by the DNR.

Please let us know if you have any questions.

Scott A. Milburn, MS
Principal Botanist/Founder
Midwest Natural Resources, Inc.
612-310-6260 (mobile)

Source: Metropolitan Council Aerial Imagery, 2020, MnGeo, MN Department of Natural Resources, US Census Bureau, Date: 3/9/2022

0 400 800 Feet

Proposed Survey Area
Rare Plant Surveys
Mississippi Landing
Washington County, Minnesota

Figure 1

Appendix B – Species Lists

Species List		
Acer ginnala	*Cirsium vulgare*	*Linaria vulgaris*
Acer negundo	*Clematis virginiana*	*Lithospermum caroliniense var. croceum*
Acer saccharum	*Corydalis aurea var. aurea*	*Lithospermum incisum*
Achillea millefolium	*Crepis tectorum*	*Lonicera tatarica*
Ageratina altissima var. altissima	*Cycloloma atriplicifolium*	*Lycopus americanus*
Alliaria petiolata	*Cyperus lupulinus*	*Lycopus asper*
Ambrosia artemisiifolia	*Cyperus schweinitzii*	*Lythrum salicaria*
Ambrosia psilostachya	*Dalea villosa var. villosa*	*Maianthemum canadense*
Andropogon gerardii	*Delphinium carolinianum subsp. virescens*	*Maianthemum racemosum subsp. racemosum*
Anemone canadensis	*Dichanthelium linearifolium*	*Malus sp.*
Anemone cylindrica	*Dichanthelium oligosanthes*	*Melilotus officinalis*
Apocynum cannabinum	*Echinocystis lobata*	*Menispermum canadense*
Aquilegia canadensis	*Elymus repens*	*Mirabilis nyctaginea*
Arctium minus	*Equisetum hyemale subsp. affine*	*Mollugo verticillata*
Arisaema triphyllum	*Eragrostis spectabilis*	*Monarda fistulosa*
Aristida basiramea	*Erigeron annuus*	*Monarda punctata var. villicaulis*
Aristida tuberculosa	*Erigeron strigosus*	*Morus alba*
Artemisia dracunculus	*Euphorbia corollata var. corollata*	*Nasturtium officinale*
Artemisia ludoviciana subsp. ludoviciana	*Euphorbia dentata*	*Nepeta cataria*
Asclepias cf. speciosa	*Euphorbia esula*	*Oenothera clelandii*
Asclepias incarnata var. incarnata	*Euphorbia nutans*	*Packera plattensis*
Asclepias syriaca	*Festuca rubra*	*Panicum virgatum*
Asclepias tuberosa var. interior	*Fragaria virginiana*	*Parthenocissus vitacea*
Asclepias verticillata	*Frangula alnus*	*Paspalum setaceum*
Berteroa incana	*Fraxinus pennsylvanica*	*Penstemon gracilis*
Bouteloua curtipendula var. curtipendula	*Froelichia floridana*	*Penstemon grandiflorus*
Bouteloua hirsuta var. hirsuta	*Galium aparine*	*Persicaria pensylvanica*
Bromus tectorum	*Geum canadense*	*Phlox divaricata var. laphamii*
Campanula americana	*Glechoma hederacea*	*Phragmites australis*
Cannabis sativa	*Gymnocladus dioica*	*Phryma leptostachya*
Carex blanda	*Hackelia virginiana*	*Physalis heterophylla var. heterophylla*
Carex brevior	*Helianthus pauciflorus*	*Picea abies*
Carex gracillima	*Hesperostipa spartea*	*Pinus banksiana*
Carex inops subsp. heliophila	*Heterotheca villosa*	*Pinus resinosa*
Carex muehlenbergii	*Hieracium longipilum*	*Pinus strobus*
Carex sprengelii	*Hydrophyllum virginianum var. virginianum*	*Plantago major*
Carex stricta	*Impatiens capensis*	*Plantago patagonica*
Carya cordiformis	*Iris sp.*	*Poa pratensis subsp. pratensis*
Catalpa speciosa	*Juglans nigra*	*Polanisia dodecandra*
Celtis occidentalis	*Juniperus virginiana var. virginiana*	*Polygonatum biflorum*
Cenchrus longispinus	*Koeleria macrantha*	*Polygonum tenue*
Centaurea stoebe subsp. micranthos	*Lactuca serriola*	*Populus deltoides subsp. monilifera*
Chamaecrista fasciculata	*Leersia virginica*	*Potentilla argentea*
Chenopodium simplex	*Leonurus sibiricus*	*Potentilla arguta subsp. arguta*
Circaea lutetiana var. canadensis	*Lepidium virginicum subsp. virginicum*	*Prunus pensylvanica*
Cirsium arvense	*Lespedeza capitata*	*Prunus serotina*

Species List		
Prunus virginiana		
Quercus ellipsoidalis		
Quercus macrocarpa		
Quercus rubra		
Ranunculus abortivus		
Rhus hirta		
Ribes missouriense		
Rubus occidentalis		
Rubus plicatifolius		
Rumex acetosella		
Salix amygdaloides		
Salix petiolaris		
Salsola tragus		
Sanicula canadensis		
Schizachyrium scoparium var. scoparium		
Scrophularia lanceolata		
Setaria viridis		
Silene antirrhina		
Sisymbrium altissimum		
Sisyrinchium campestre		
Smilax tamnoides		
Solidago gigantea		
Solidago rigida		
Sonchus arvensis		
Sporobolus cryptandrus		
Sporobolus vaginiflorus var. vaginiflorus		
Symphyotrichum lateriflorum		
Symphyotrichum pilosum		
Syringa vulgaris		
Taraxacum officinale		
Tradescantia sp.		
Tragopogon dubius		
Typha sp.		
Ulmus americana		
Ulmus pumila		
Urtica dioica subsp. gracilis		
Verbascum thapsus		
Verbena hastata		
Verbena stricta		
Viola palmata var. pedatifida		
Viola sororia		
Vitis riparia		
Zanthoxylum americanum		

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Mississippi Landing Pre-Plat Narrative

To: City of Cottage Grove

From: Rachel Development, Paul Robinson – Development Director

Date: 12/22/2023 updated 1/4/2024

1. **Contacts/Developer**
   - **Owner**
     - David Gustafson, 1280 Ingerson Road, Arden Hills, MN 55112

   - **Applicant/Team**
     - **Developer** - Rachel Development, 4180 Napier Court, St. Michael, MN – Paul Robinson, Development Director
     - **Engineer** - Alliant Engineering, 733 S Marquette Ave. Suite 700, Minneapolis, MN 55402, Mark Rausch
     - **Surveyor** – Alliant Engineering, 733 S Marquette Ave. Suite700, Minneapolis, MN 55402, Dan Ekrem
     - **Landscape Architect(s)**
       - Ernst and Associates, 1949 Woodstone Lane Victoria, MN 55386, Gene Ernst
       - Alliant Engineering, 733 S Marquette Ave. Suite700, Minneapolis, MN 55402, John Gronhovd

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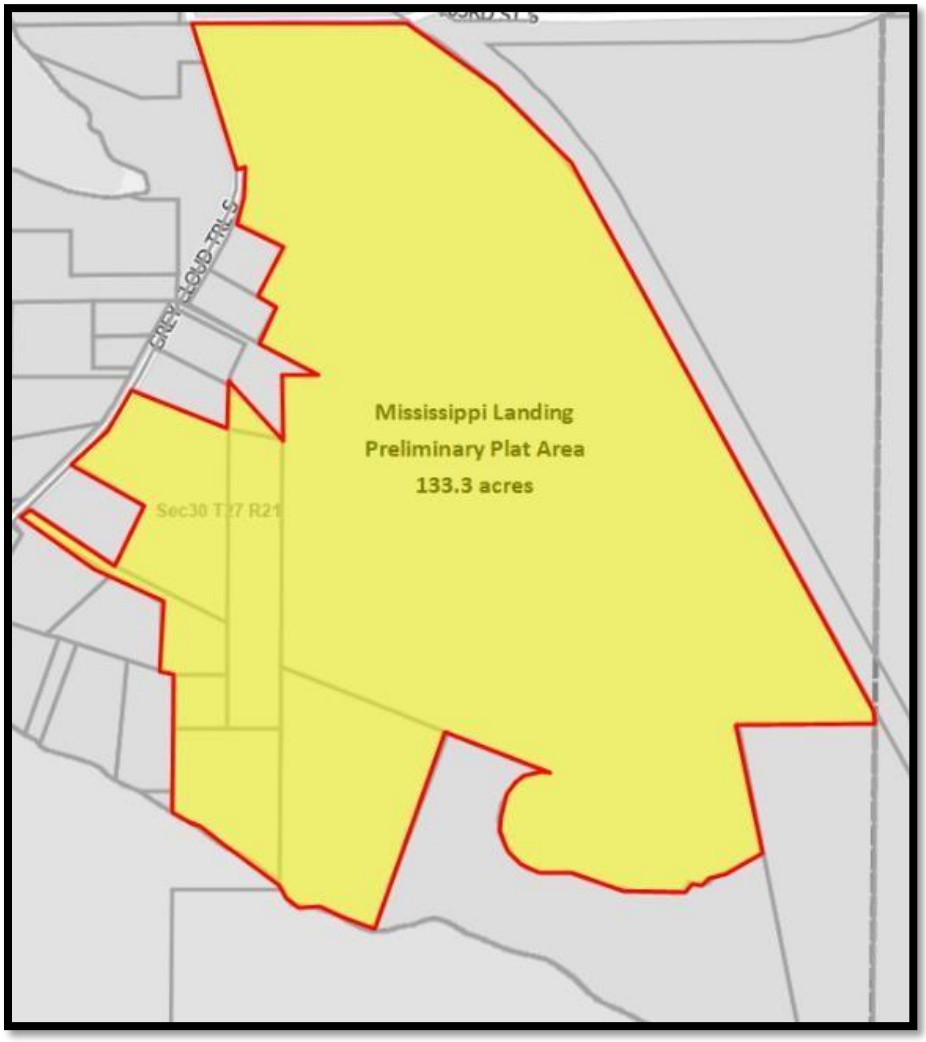
- **Wetland/Environmental Consultant** – Kjolhaug Environmental, 2500 Shadywood Road, Suite 130, Orono, MN 55331, Melissa Barret
- **Geotechnical** – Braun Intertec, 11001 Hampshire Ave S, Bloomington, MN 55438, Joe Westphal

2. Property

- **Address** – 10351 Grey Cloud Trail S, Cottage Grove, MN 55016
- **Current Zoning** – Single Family Residential/Medium Density
- **Current Land Use Plan Guiding** - Low Density Residential/Medium Density Residential



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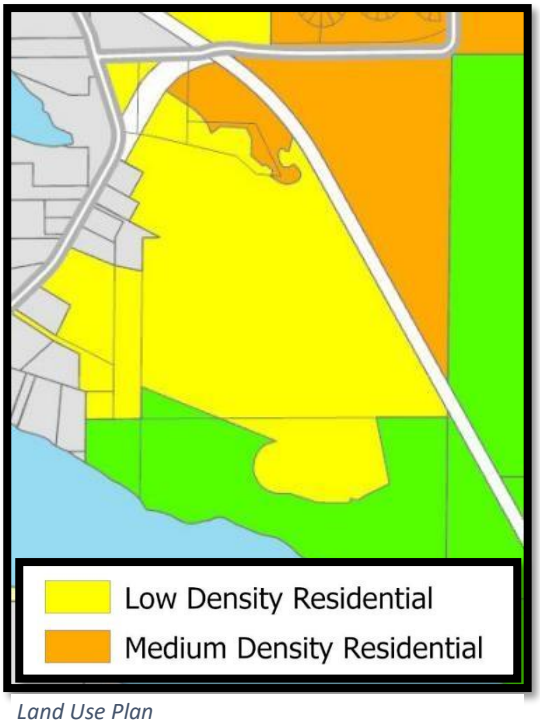
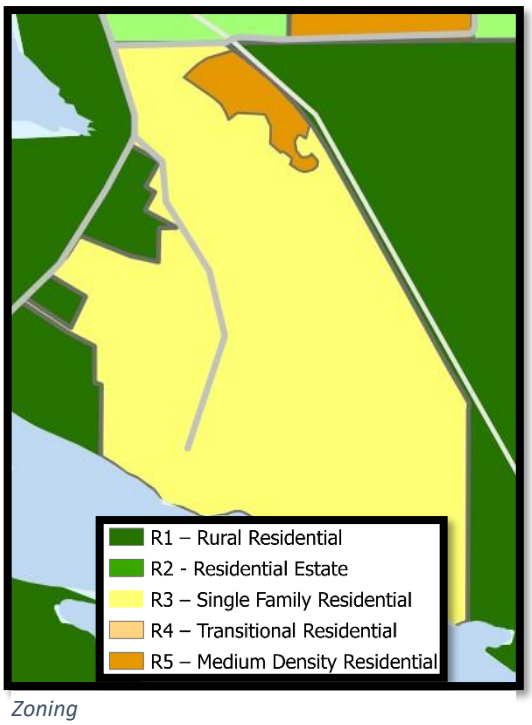


Land Use Plan



Zoning

3. General Introduction

Our Preliminary Plat submittal for Mississippi Landing builds on and amends the previously approved Mississippi Landing Preliminary Plat. While there are differences that will be described throughout this narrative. From a macro perspective, the developed area of the property has not changed significantly.

There are some general themes in the changes we have made and they include:

- Reallocating open space and ponding – You will see that our amended plat includes moving more open spaces and ponding into the interior of the neighborhood.

- Creating three more distinct neighborhood areas – There are now three main lot widths 40', 52.5' and 65' within the development. Some are smaller and some are larger than in the previously approved plat. All in all, these new lot sizes create three more distinct neighborhoods.

- All detached housing products – The previous plan included an apartment building that has now been removed from the development. All the homes will be detached single family homes.

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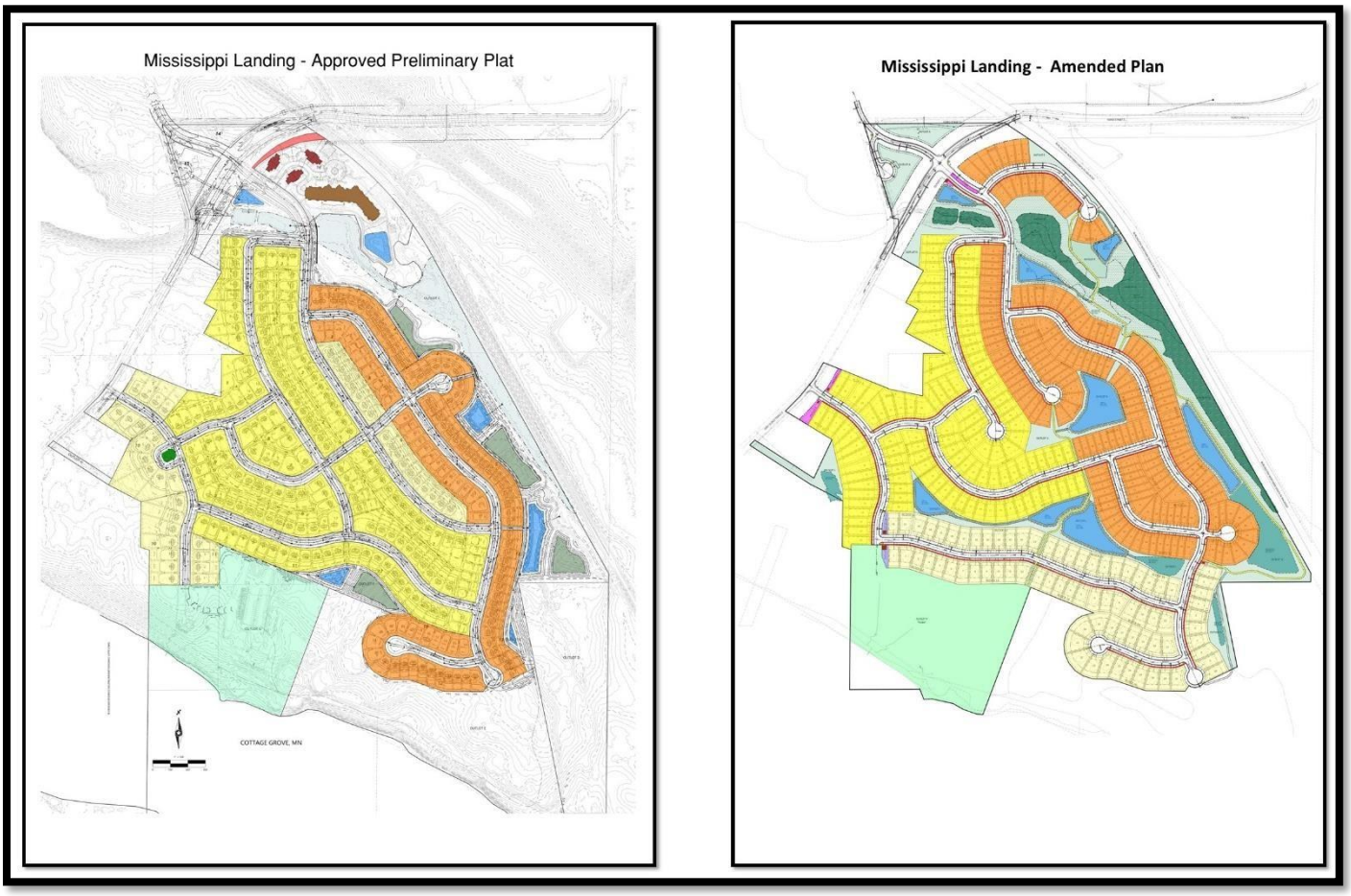
- River neighborhood – One of the three neighborhoods, made up of the 65' lots, is located along and/or near the river and parkland. This neighborhood has a more exclusive feel and will have the most valuable in Mississippi Landing.

- Street adjustments - While the general makeup and location of the streets are similar, we did add a few more cul-de-sacs and tried to enhance the curvilinear makeup of the streets to break up longer straighter sections of the streetscape.

- Focus on market need – While we worked hard to make the neighborhood aesthetically better, we also spent a great deal of time on how we could deliver the best and most successful product mix into this part of the Cottage Grove housing market.



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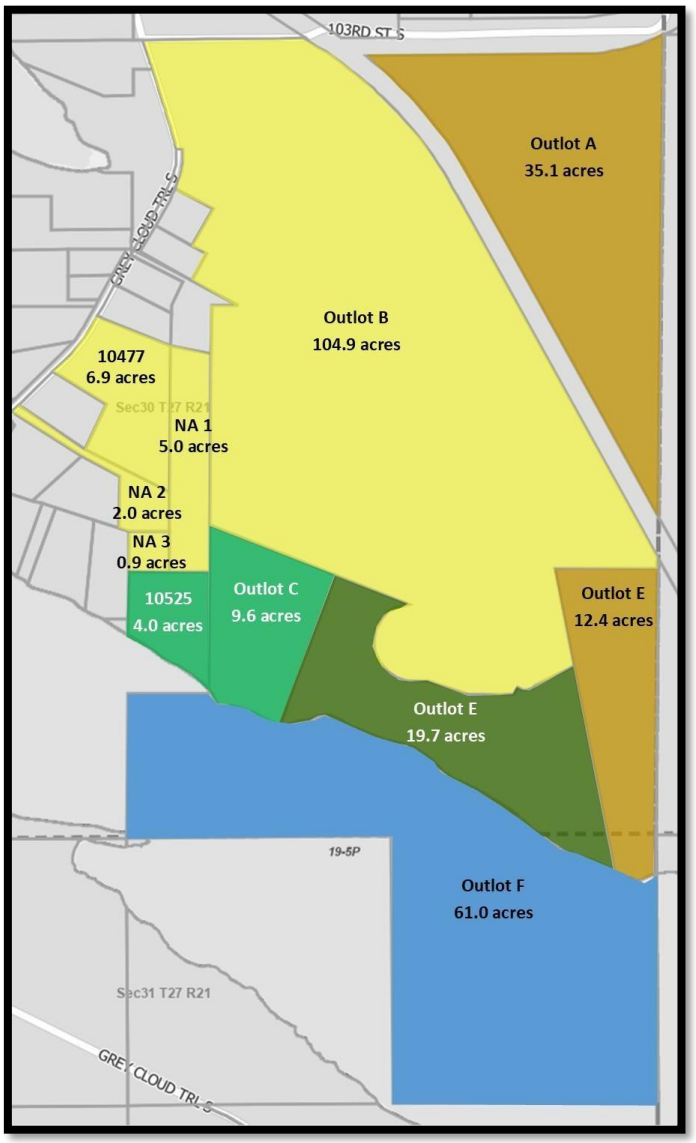
4. **Property** – A lot of different acreage numbers have been used to describe the Mississippi Dunes property. The figures below are meant to help clarify the total acreages and the remaining acreage that are subject to the updated Mississippi Landing Preliminary Plat. The acreages used in this exhibit are from the County GIS records and vary slight from the surveyed acres used in the formal pre-plat submittal.



Mississppi Landing Amended Preliminary Plat Area*

Lot	Acres	Future Purpose
Outlot B	104.9	Redeveloped into homesites
10477	6.9	Redeveloped into homesites
NA 1	5.0	Redeveloped into homesites
NA 2	2.0	Redeveloped into homesites
NA 3	0.9	Redeveloped into homesites & City Park
10252 Gray Cloud Tr	4.0	City Park
Outlot C	9.6	City Park Currently owned by City
	133.3	

Areas to be Sold to DNR

Lot	Acres	Future Purpose
Outlot A	35.1	Added to DNR - SNA
Outlot E	12.4	Added to DNR - SNA
	47.5	

Acres Previously Dedicated to the City

Lot	Acres	Future Purpose
Outlot E	19.7	Conservation Parkland Currently owned by City
Outlot F	61.0	Land under River - Currently owned by City
	80.7	

Total Mississippi Dunes	**261.5**

* Acres used for this table were generated from the Washington County GIS system are slightly different than those used in the Preliminary Plat submittal

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5. Amended Pre-Plat Area

Mississippi Landing Amended Preliminary-Plat Area

Lotted Area	64.5	48%
Open Space		
Storm Water Treatment	8.12	
Wetlands	6.09	
Wetland Impacts	-0.55	
Wetland Buffers	4.81	
Private Parkland	0.5	
Additional Open Space	27.21	
Total Open Space	46.18	34%
Right of Way		
County ROW	4.53	
Gray Cloud Trail	1.02	
Internal Roadways	18.59	
Total Right of Way	24.14	18%
Total Acres	**134.82**	**100%**

6. Lots/Units/Setbacks

Mississippi Landing - Preliminary Plat Units/Lots

	Unit Count	Minimum Lot Width	Minimum Lot Depth	Minimun Lot Area	Average Lot Area	Front Setback	Side Setback	Total Side Setbacks	Rear Setback
	units	feet	feet	sf	sf	feet	feet	feet	feet
Detached Townhomes	183	40	125	5,000	5,860	20/22.5*	5	10	30
Mid - Single Family	117	52.5	130	6,825	8,650	25	6.25	12.5	35
Large Lot Single Family	77	65	130	8,450	8,940	25	6.25	12.5	35
Total	**377**								

NOTE: *22.5' on side of street with sidewalk

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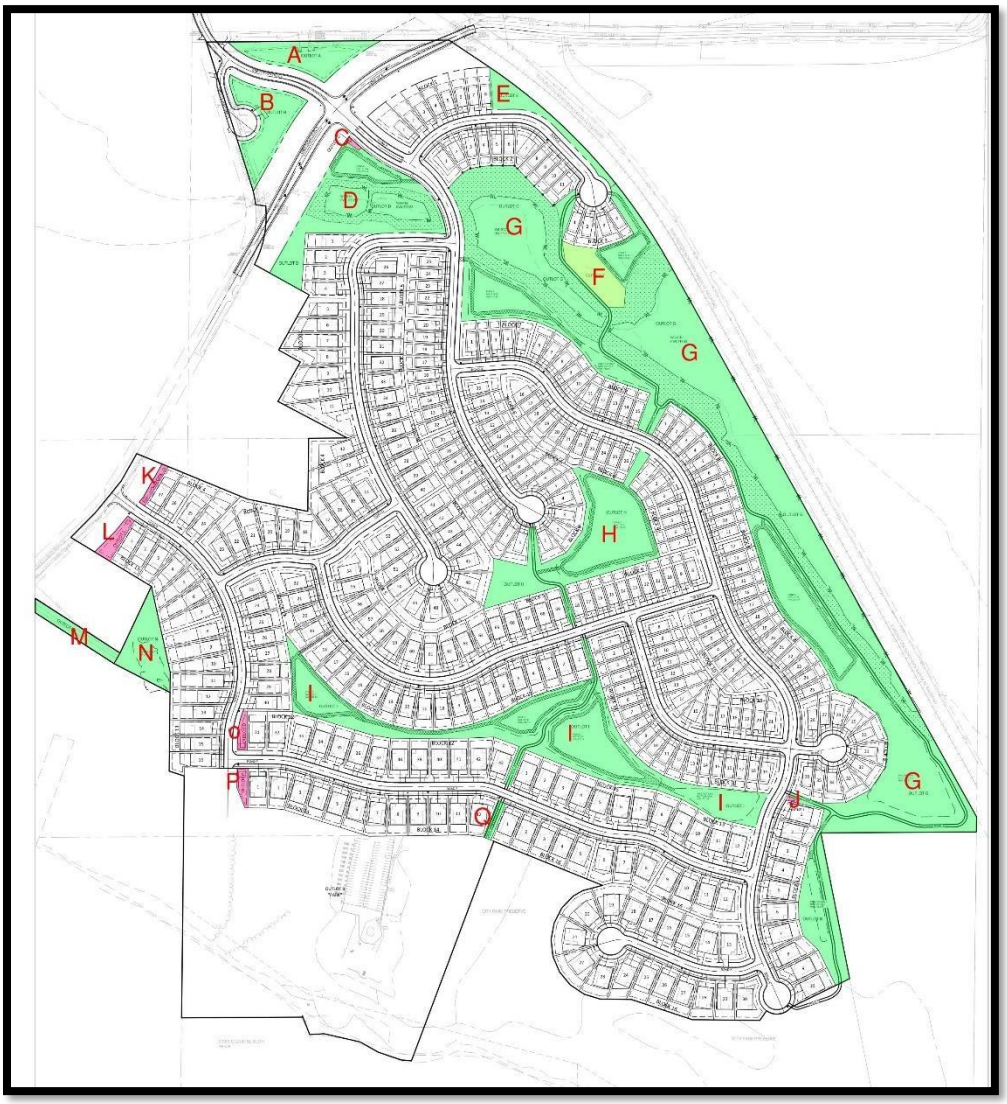
7. Outlots – Proposed Use and Ownership



- **Outlot A** – This outlot is being transferred to the City based on the terms in the Pre-Development Agreement. Future use may be for storm water treatment.
- **Outlot B** - This outlot is being transferred to the City based on the terms in the Pre-Development Agreement. Future uses include a regional lift station facility and may also be used for storm water treatment in the future.
- **Outlot C** – This outlot will be owned by the Master Homeowner's Association (HOA) and will contain an entry monument and landscaping.
- **Outlot D** – This outlot will be owned by the City and contains wetlands and storm water facilities.
- **Outlot E** – This outlot will likely be owned by the Detached Townhome Sub-Association and will primarily act as a buffer and open space for the neighborhood.

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- **Outlot F** – This outlot will likely be owned by the Detached Townhome Sub-Association and will be a casual private park for the detached townhome neighborhood.
- **Outlot G** - This outlot is to be owned by the City and contains wetlands, trails and storm water facilities.
- **Outlot H** - This outlot is to be owned by the City and contains wetlands, trails and storm water facilities. (City is looking at if this outlot should be separated into two outlots one for the HOA and one for the City)
- **Outlot I** - This outlot is to be owned by the City and contains wetlands, trails and storm water facilities.
- **Outlot J** – This outlot will be owned by the Large Lot Single Family Homeowner's Association (HOA) and may contain an entry monument and/or landscaping.
- **Outlot K** - This outlot will be owned by the Master Homeowner's Association (HOA) and will contain an entry monument and landscaping.
- **Outlot L** - This outlot will be owned by the Master Homeowner's Association (HOA) and will contain an entry monument and landscaping.
- **Outlot M** – This outlot is being proposed to be retained by the Developer,
- **Outlot N** – This outlot is being proposed to be owned by the HOA or to be divided into lots in the future with an easement over the trees and drainage area that make up the current outlot. The outlot will contain open space and a storm water drainage area.
- **Outlot O** - This outlot will be owned by the Large Lot Single Family Homeowner's Association (HOA) and may contain an entry monument and/or landscaping.
- **Outlot P** - This outlot will be owned by the Large Lot Single Family Homeowner's Association (HOA) and may contain an entry monument and/or landscaping.
- **Outlot Q** – The outlot is being proposed to be owned by the City and will be part of the trail system.
- **Outlot R** – This outlot is taking the existing park area previous dedicated to the City by the current owner and combining it with neighboring parcels to complete the total Park Dedication requirement for Mississippi Landing.

8. **Wetlands** – As shown on the table about there are 6.09 acres of wetlands on the property. They were highly altered and dammed by the golf course to creating ponding. We are preserving a majority of the wetland areas as delineated as well as adding the required wetland buffers. The buffer areas will be planted with native seed mixes to restore the wetland areas to a more natural condition. Just under ½ acre of wetland area is being impacted to allow for a roadway connection into the property and to accommodate the rerouting of the future county road. This wetland impact will be off-set by purchasing wetlands credits from a local wetland bank.

9. **Soils** - The vast majority of the soils on site are various types and gradations of sand. There are some smaller pockets of clay and topsoil. Underlying the soils on site is bedrock. A significant number of test pits, soil borings and core sample have been completed to understand the location, characteristics and topography of the underlying bedrock on site. To date there were no indications of Karst within the bedrock areas. That said we are following the recommendations of our geotechnical professionals and the guidance in the MN storm water manual when it comes to the lining and vertically separating retention ponds and infiltration

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basins to bedrock. Soil investigation has indicated that bedrock elevations are highly variable. Large portions of the site have been raised to reduce or eliminate the need to remove bedrock, however, all bedrock areas cannot be avoided, primarily due to utility installation. We do not yet know the technique(s) that will be used for removing bedrock, it could be one or all of the following methods: mechanically hammering, mechanically trenching or blasting. It is our intention to reuse the excavated bedrock on site for rip rap, road base, general fill, and possibly in our landscaping as outcroppings and veneer on our monuments.

10. **Floodplain** – According to the FEMA Firmette for our property, there are no regulated floodplain areas on the property. There is a small area outside of the 100 year flood area called shaded zone X, this area is not in or near any homesites and is not formally regulated by City Code.

11. **Existing Wells and Septic System** – There are several existing wells and septic systems on the property. All existing wells and septic systems will be properly sealed and/or removed as a part of the development work.

12. **Sanitary Sewer** – All of the homes in Mississippi Landing will be served by City sanitary sewer. The sewer system will convey wastewater to the northern portion of the Mississippi Landing Neighborhood to the City lift station being built in conjunction with this neighborhood. The lift station will be sized to eventually function as a regional lift station facility. The design of lift station and associated forcemain are being completed by the City. The City has been working with adjacent residents and property owners on the needed easements for the trunk sewer and water facilities.

13. **Temporary Access Easement to Park** – As a part of the early dedication of parkland by the current owner, an access easement was provided to the Parkland along the river. This easement will be vacated as a part of the first phase of the Mississippi Land development work and an alternative/permanent access will be provided. Due to the extent of the grading, utility and road work in the first phase of the development and due the danger posed to the public from this work there will be times when access is not possible or will be limited for significant periods of time during the 2024 construction season.

14. **Streetlights** – The street light locations that we have provided on the plan are in general conformance with the City's guidelines to be no less than 200' and no more than 250'. There are some areas where the 250' has been extended.

15. **Water** – This neighborhood is being served by City water. The water connection is in 103rd Street adjacent to Settlers Bluff. In addition to the development of a trunk watermain connection, a watermain loop is also being constructed. Both connections will require jacking under the railroad and the installation of pressure reducing valves.

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16. **Storm Water Treatment -** Our proposed storm water treatment has been designed to meet the City and Watershed rules. The system is made up of 8.93 acres of ponds and infiltration basins as measured at the high water level. As mentioned above, Mississippi Landing is located over various depths of bedrock. The location and depths have been studied and guidance from Braun Intertec and the MN storm water manual will be followed. All ponds will be lined per City specifications and infiltration basins will be located 10' above any bedrock. No additional stormwater will be directed across the DNR Scientific and Natural Area.

17. **Roads**
    - Future County Road – With our amended preliminary plat we are dedicating 4.4 acres of property for the realignment of 103rd Street and also providing the City with the 180' wide section of Right of Way desired by the County for future roadway expansion. We will be rebuilding the section of 103rd Street through our plat, including left and right turn lanes at the intersection of Grey Cloud Trail S. and Road A.

    - Interior Roads - All interior roadways are 28' wide curb face to curb face. Per city code, parking from 2:00 am – 6:00 am will not be allowed during the winter months.

18. **Railroad** – We have been in communication with the railroad about the permit/license agreements needed for the trunk sewer and water utility crossings. Most of the work has been completed and the permits/license will be completed once the truck facility construction plans are completed.

19. **Trails and Sidewalks** – With the City Council 's initial review of our Preliminary Plat changes in September we stated that we would provide the same or similar trail system as was in the previously approved plat. We are providing additional trail length and connections than were in the previous plat. In total, there will be 5,329 feet of trails and 12,517 feet of sidewalks. Residents will have a pedestrian system with over 3 miles of trails and sidewalks connecting residents to each other and to the Mississippi Dunes Park. We are planning on the trail being owned and maintained by the City.

20. **EAW**
    - An EAW was completed for development of this property and the City determined that no EIS was needed.
    - Actions items raised in the EAW will or have already been addressed by us, the previous developer or the City.
    - The development density that was studied with the EAW contemplated 499 units. We are well below that threshold with 377 total units.
    - Notable studies that came from of the EAW work and were completed included:
        - A Rusty Patch Bumblebee Habitat Assessment – This assessment was completed and determined that in general there was low suitability habitat for the RPBB within the portions of the property being developed.
        - Phase I Archeological Survey – This survey found no archaeological resources on the property being developed. While unlikely, a contingency plan will be put in place in case any resources are discovered during construction.

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- Rare Plant Survey - This survey found only one state-listed plant species and that was found outside of the area being developed. There were no direct impacts to this plant population.

21. Work Completed to Date

- Wetland Delineation – Completed and Approved – 4/18/2022
- EAW – Completed – No EIS Determination Made – 2/2/2022
- Rusty Patch Bumble Bee Habitat Assessment – Completed – 3/2/2022
- Rare Plant Survey – Completed – 8/14/2022 (DNR Survey Protocol Approval – 10/11/2022)
- Phase I Archaeological Report – 9/2/2022
    i. Unanticipated Discovery Plan – 5/2/2022 (Update for Rachel Development in progress)
- Soil Evaluations – Completed – Comprehensive DRAFT report from Braun – 12/19/2023
- Traffic Studies – Completed with EAW
- Historical Evaluation of 10301 Grey Cloud Trail – 11/2021
- Natural Heritage Review – 11/19/21 (Update ordered 10/1/23)

22. Summary of the amendments/changes made to the previously approved Preliminary Plat

- Units – When comparing the previous plat to our amened plat the overall units only increased by 5. The biggest change was the elimination of the apartment building and the addition of detached townhomes.

- Storm Water Treatment - Storm water treatment pond locations were adjusted, bringing more of the storm water ponding into the neighborhood versus previously being situated primarily along the eastern boundary of the neighborhood.

- Parks - A large portion of the Mississippi Dunes park area was previously dedicated to the City. With this Amended Plat of Mississippi Landing additional area will be added and the boundaries finalized. A small interior private park within the detached townhome neighborhood was also added with this amended plat that was not in any previous plans.

- Product Type – With this amended plat we created three distinct neighborhoods with differing single family product offerings.
    i. 40’ wide lots with Capstone detached townhomes likely starting in the low 400’s
    ii. 52.5’ lots with M/I Smart Series two story homes likely starting in the mid-upper 400’s
    iii. 52.5’ lots with M/I main floor living Villas likely starting in the lower 500’s
    iv. 65’ lots with more custom home builders likely starting in the 700’s

- Builders - Changed from a neighborhood with one builder to one with at least four builders.

23. HOA – There will be a master homeowners association and likely four sub-associations. Each sub-association will have their own architectural guidelines depending on the products they are building. Maintenance of common open spaces, monuments and signs will be done by either

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the master association or one or more of the sub-associations depending on the location. The declarations will include a requirement that there not be any encroachments over the public walkways.

24. **Park Dedication** – It is our understanding based on the agreement with the current landowner that with the dedication of the totality of Outlot R, Mississippi Landing we have satisfied the park dedication requirement for Mississippi Landing.

25. **Home at 10301 Grey Cloud Island** – A historical cultural survey was completed for the home at 10301 Grey Cloud Island as a part of the EAW process. The home is in disrepair and has been significantly altered over the years. Development of Mississippi Landing will require removal of this home. The City has let us know that they would like to create a permanent historical interpretive sign that would help describe and preserve the history of the home. We have told City staff that we are willing to help with the design and to pay for the sign to help preserve the history and memory of this home.

26. **Street Names** – We will be working with the City and the County on an acceptable street name plan.

27. **Pre-Development Agreement** – In September we presented a plan to the City Council outlining the amendments we wanted to make to the approved Preliminary Plat and discussed with the City some clarifications and items we would needed in order to move forward with an amended Preliminary Plat. Those items were memorialized in a Pre-Development Agreement on file with the City. In general, that agreement outlined.
    - Apportioning the cost of the trunk watermain cost between the Developer and City.
    - Apportioning the cost of the regional lift station and forcemain between the Developer and City.
    - Clarifying the costs and design for construction of 103rd Street with the Developer will build the new portions of 103rd Street within the Mississippi Landing Plat. The City will take care of any overlay required outside of the plat.
    - Establishing the calculation for net acres. At the time the amount was 101.08 acres net acres for trunk fees.
    - Clarifying the application of the Tree Preservation code.
    - Establishing the city's purchase of Outlots A & B, Mississippi Landing.

28. **Landscaping - Homesites**
    - <u>40' Lots</u> – For the detached townhomes due to their home spacing and density we are asking for the same landscaping consideration as was giving to Settler's Bluff. The proposal includes: one street tree for every other lot, and one backyard overstory tree or conifer tree (conifers used primarily in backyards that face one another), one ornamental tree, and 5 shrubs per lot.

    - <u>52.5' Lots</u> – On the 52.5' lot we are asking for similar flexibility. We are proposing one street tree for every other lot and 2 overstory trees (one can be ornamental) per lot plus 10 shrubs. For lots with saved existing trees in the rear yard, those trees have been substituted as a fulfillment for the overstory tree planting requirements.

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- 65' Lots – For the 65' lots we are ok providing the total number of trees per City Code but would like the flexibility to plant some trees that would be required on the lots, specifically for the lots along the river and adjacent to the City and or DNR park land, into other areas of the neighborhood. Each lot along the Park land will still have at a minimum one street tree and one rear yard tree (if there are existing trees saved on the lot an additional rear year tree is not provided) and 10 shrubs.

29. **Landscaping – Open Spaces – Restoration** – A majority of the open space areas within the neighborhood will be seeded with native seed mixes. This includes but is not limited to ponding areas and pond edges, infiltration areas, wetland buffers, and other areas within the open space disturbed by grading activities. The only areas that will be more formally maintained and landscaped are the entrance areas and the areas where trails enter the open spaces and are adjacent to homesites.

    Within the City Conservation Park area there are eroding slopes, left over concrete footings, portions the park the drain into the proposed lots requiring additional piped infrastructure, and piles of dirt that were remnants of the former golf course. We respectfully request that the City look into restoring these areas. We are willing to participate in softening and stabilizing the eroding slopes, routing water away from lots, removing the concrete and removing or softening piles of material left over as a byproduct of the former golf course grading activity and then seeding/restoring any disturbed areas with native seed.

30. **Landscaping – License Areas** – Throughout the development there are public areas where we are proposing landscaping and would have the HOA maintain these areas. These include areas at the development or sub-neighborhood entrances and where trails abut the lots. We would like the right but not obligation to maintain and irrigate where needed in these areas, similar to front yard lawn treatment inside the street ROW. This agreement could be documented in our development agreement or in the license agreement.

31. **Tree Preservation** – In general, the development will require removal of fewer trees than was planned for in the previous plat and we are offsetting the tree loss that will occur with the trees saved within the open space areas and on the properties to be sold to the DNR.

32. **Landscaping – Entrances/Monuments/Screening** – Below are some concept sketches for the entrances to Mississippi Landing. Our current plan is to create a national park feel. Ideally, we would like to use some of the limestone from within the project area at the entrances and throughout the development. Currently the monuments shown are at or just above 12' in height. The 10' height limit would meet the strict interpretation of the sign code. We are asking with this PUD for some flexibility to increase the maximum sign height to 12'-12'.5' The sign portion of the monument is modest in size, we just wanted the feel of the structure of the monument to match the feel and size of the development. While 12' may sound tall it will not seem tall in the locations we are placing these monuments. This is shown in the cross section on the following page.

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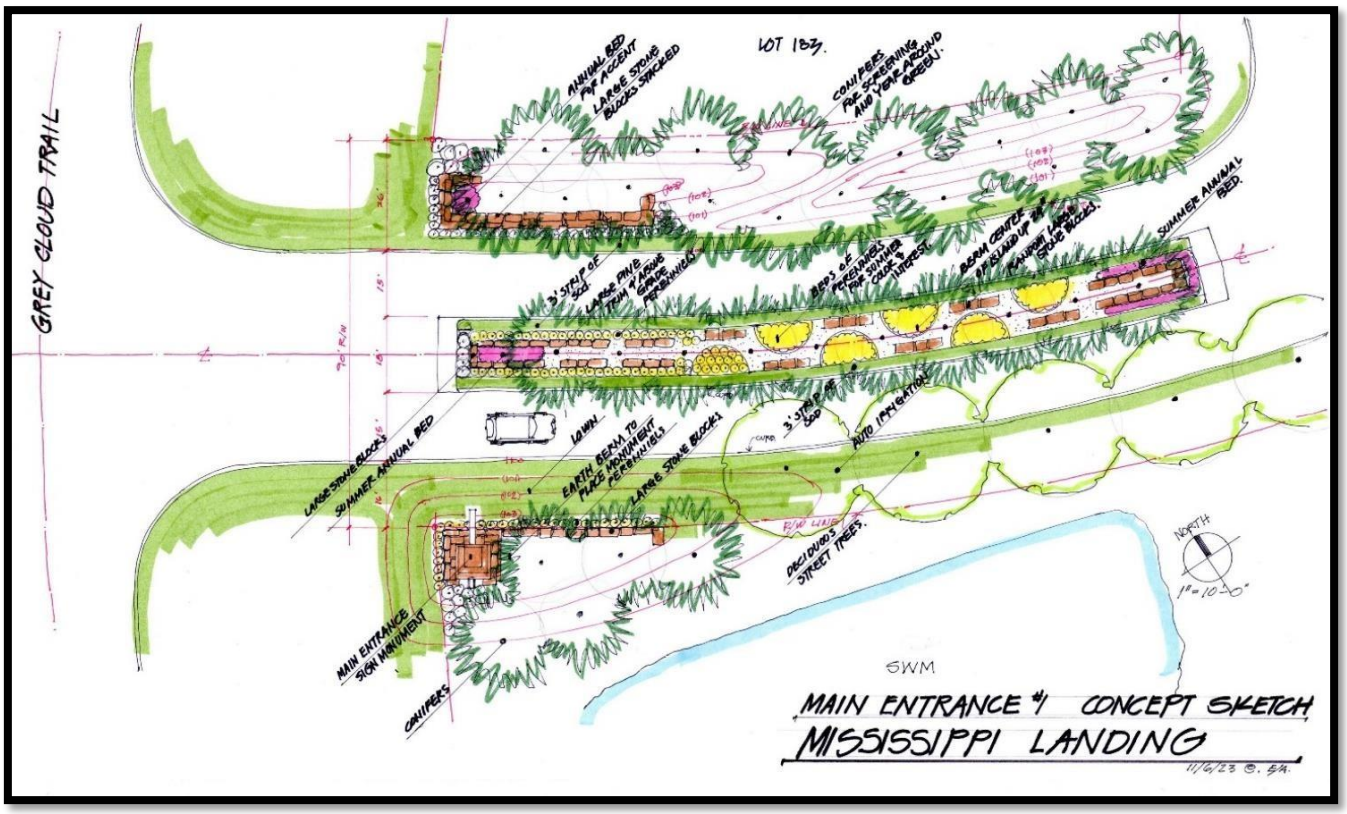
Main Entrance onto Road A



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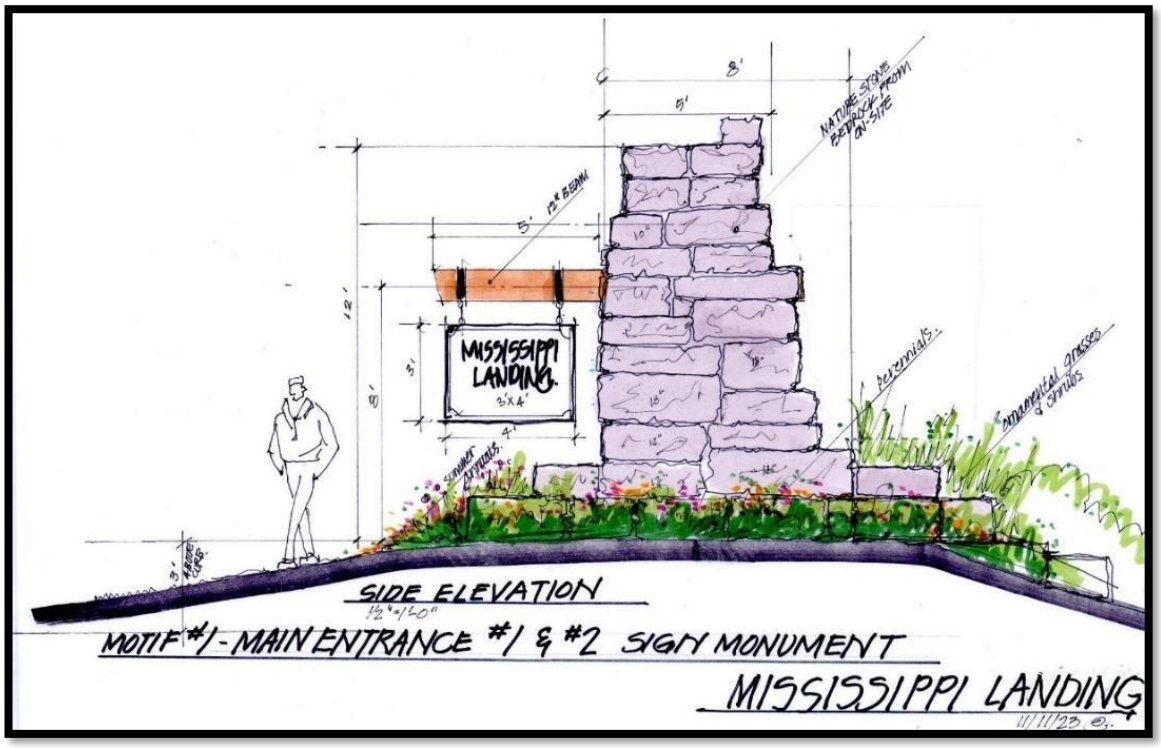
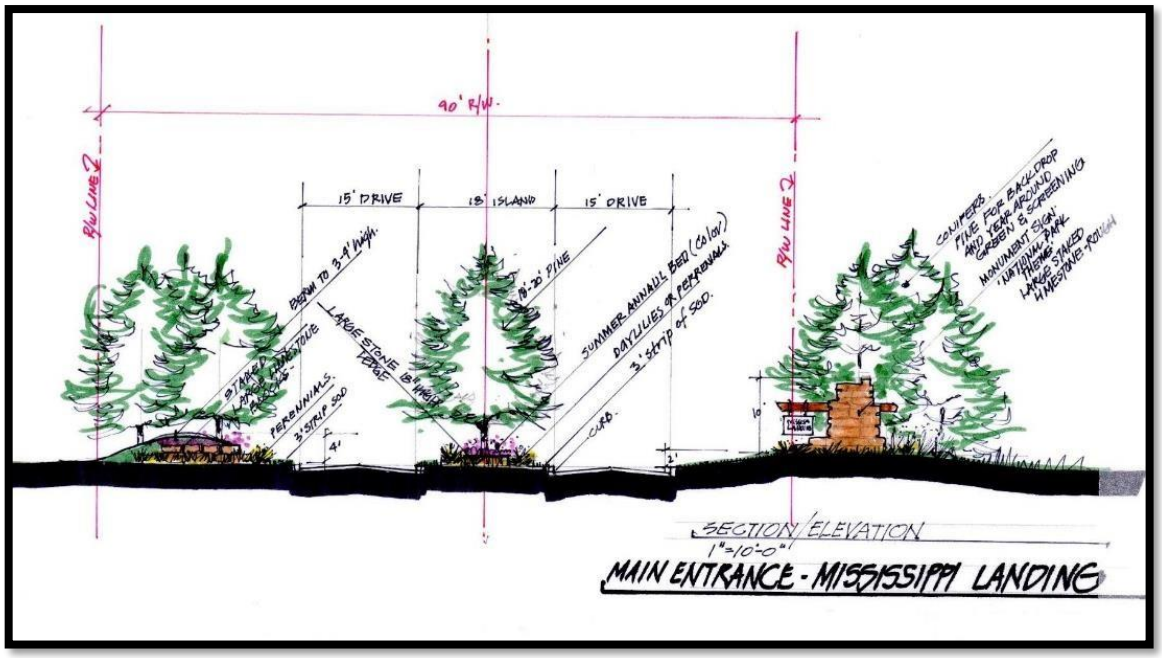
Main Entrance onto Road A – Monument Concept and Cross Section





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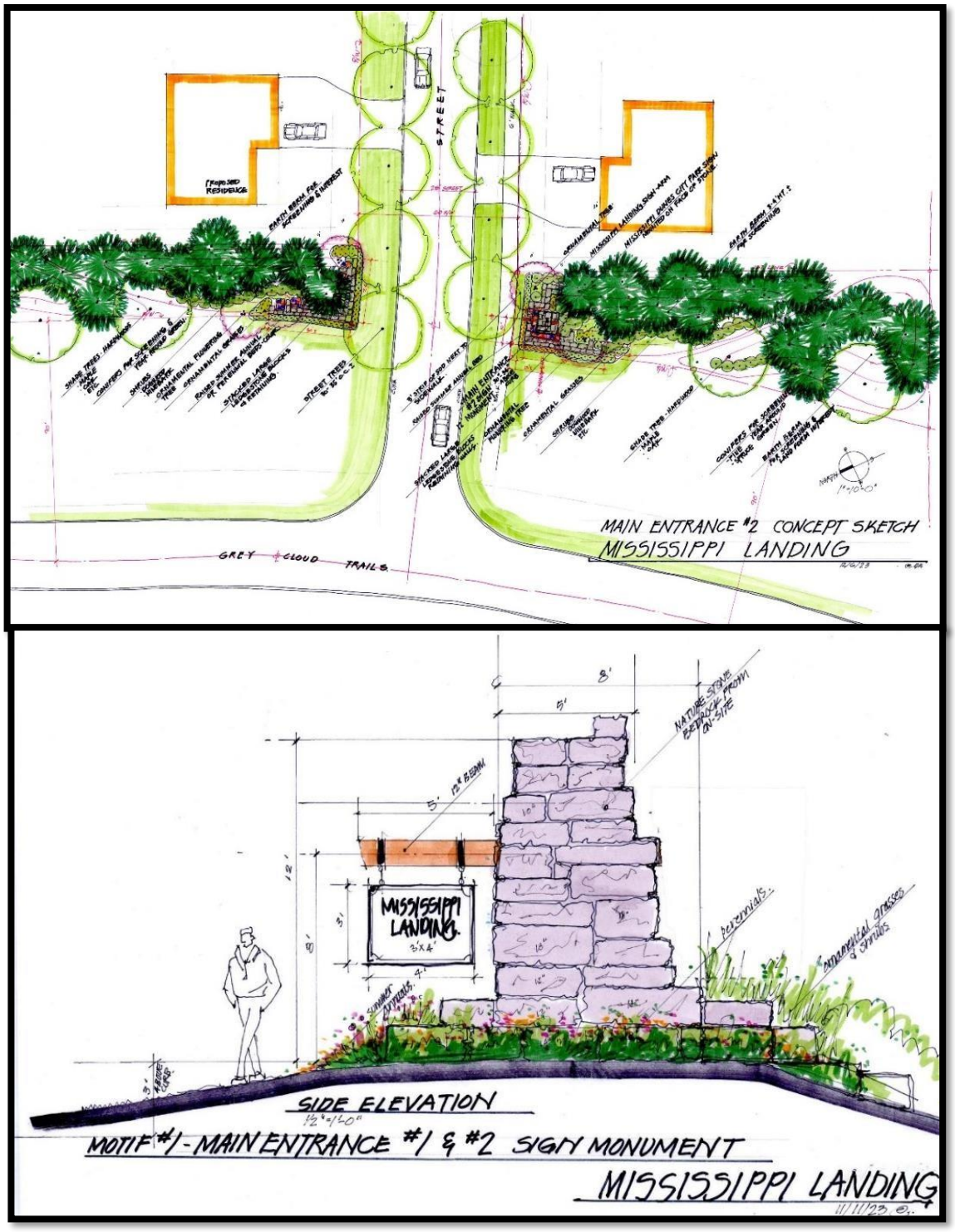
Main Entrance onto Road E – Monument & Plan View



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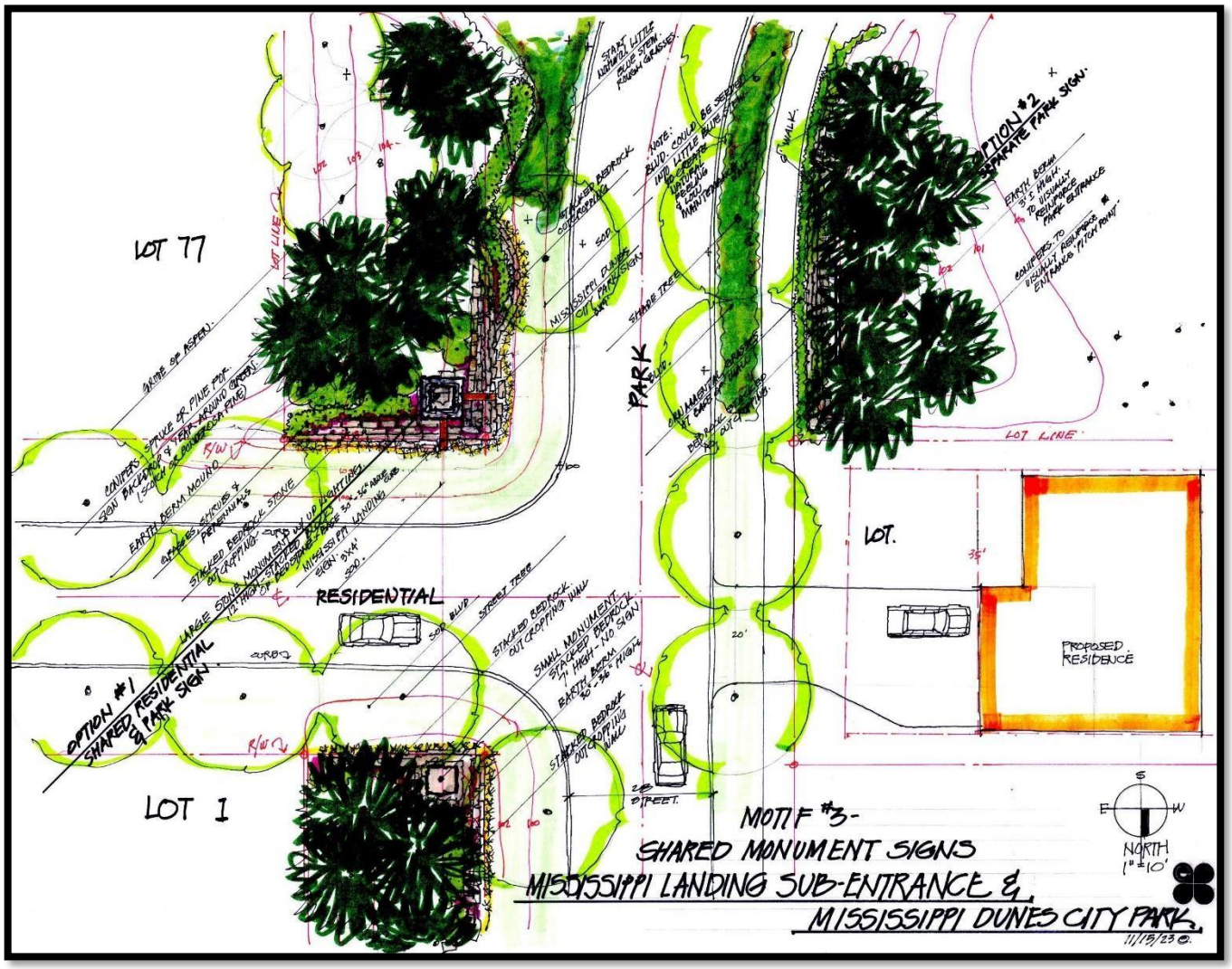
<u>Interior Monument – Entry to Park – Possibly Share Monument with Park</u> - We have been talking with the City of Cottage Grove Parks Department to see whether it makes sense for us to shared monumentation here and at the main entrance. This is still being discussed and nothing has been decided at this time.



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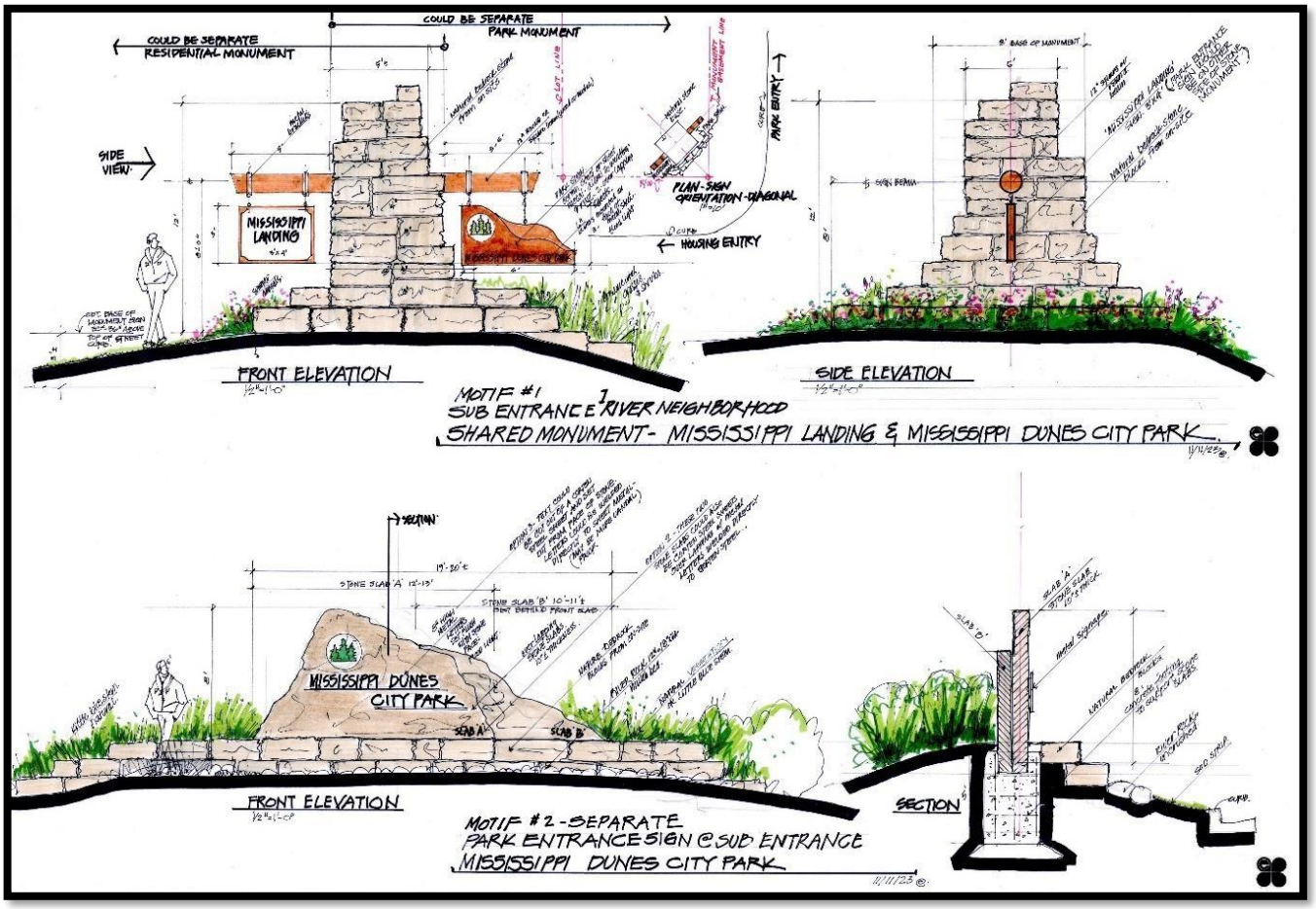
<u>Interior Monument – Entry to Park – Possibly Share Monument with Park</u> – This is an example of how the City Park Sign and the Mississippi Landing monuments signs could work together or separately.



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33. Product Types

- Capstone (40' Lots) – Capstone will be moving from Settlers Bluff into Mississippi Landing. They will be building in Mississippi Landing the same detached townhome product that they have had so much success within Settler's Bluff.

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- M/I Homes - Smart Series (52.5' lots)

- M/I Homes - Villa Homes (52.5' Lots)

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- Custom/Production (65' Lots)– We have had significant interest in these lots. We are currently working on determining who will be in the final team or pool of builders for these 65' lots. Home examples below are from builders we are currently considering.

34. City Park Plan

We believe it is in our mutual benefit to have a park plan completed prior to us selling lots along the park. We would like to be able to inform customers what they will be seeing and experiencing in the park. We also feel it is in the City's best interest for us to disclose what will be happening in the park so it can help avoid having a group of brand new residents upset with the City about future plans for the park if it's not completed or is different than they expected when they made the decision to purchase their new home within Mississippi Landing. To that end we are willing to help City with their plans and preparation of the parkland for to our mutual benefit. The could include combining grading and other work we are completing with

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our first phase with initial site preparation work for the park.

35. **Model Homes - Early Permits**– We will be requesting early model home permits for each of our builders and products within the development agreement. We understand that this is an inconvenience often for the City and we also prefer to have more work done prior to allowing builders to build homes. That said we are making a huge investment and to not be able to build model homes going into the winter can cause significant cost and delays to a project. In the end we will work with the City on a mutually agreeable plan.

36. Permits List – Below are the permits that are likely needed with our final development applications.

NPDES Construction Permit	MPCA Permits
Construction Stormwater Permit	MPCA Permits
Demolition Notification	MPCA Permits/Approval
Sanitary Sewer Extension Permit	MPCA, Met Council Permits
Water Supply Connection Permit	Mn Department of Health
Watermain Plan Review Approval	Mn Department of Health
Stormwater Plan Review	South Washington Watershed Approval
EAW– COMPLETED	City of Cottage Grove
EIS Decision Record of Decision - COMPLETED	City of Cottage Grove
Planned Unit Development Approval	City of Cottage Grove
Preliminary Plat Approval	City of Cottage Grove
Final Plat Approval	City of Cottage Grove
Storm Water Pollution Prevention Program (SWPPP) Permit	City of Cottage Grove
Grading Permit	City of Cottage Grove
Demolition Permit	City of Cottage Grove
ROW Permit	City of Cottage Grove
Building Permits	City of Cottage Grove
Sign Permit	City of Cottage Grove
HVAC, Plumbing, Electrical Permits	City of Cottage Grove
Wetland Replacement Plan Approvals	City of Cottage Grove, SWWD, ACOE, BWSR
MRCCA Vegetation Removal Permit	DNR
RR Crossing Permit/License Agreement	BNSF Railroad
Dewatering Permit - Water Appropriation - Possible/Likely	DNR
Well Removal Permit	Mn Department of Health
Well Capping/Sealing Permit	Mn Department of Health
Septic Tank Removal	Washington County/MPCA

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37. **Phasing – Grading on Pre-Plat** - Included in our plan set is a phasing plan. This plan only shows the lots and permanent infrastructure that we intend to build in the first phase of the development. The mass grading for the first phase will extend beyond the first phase infrastructure limits to accommodate site drainage and will include utilities and storm water facilities both permanent and temporary outside of the current first phase boundary. The first phase disturbance limits and infrastructure will be finalized with the first addition final plat and construction plan approval. There is utility connection from the northern portion of the first phase to the southern portion of the first phase we do not intend to complete the roadway section where lots are not being prepared for the first phase. Since we are proposing to complete a substantial amount of work in the first phase, we are looking at starting some of the grading work once we received preliminary plat approval. At a minimum, we would start tree clearing and demolition in March of 2024.

38. **Engineering Standards** - Site engineering and design shall follow the engineering guidelines which do allow for City Engineer discretion to deviate in certain circumstances. The City engineering department has indicated that there is some limited flexibility for reducing the minimum sanitary sewer depth when bedrock is encountered at shallow depths. We intend to work closely with City Staff to ensure plans are designed and constructed to requirements of the City of Cottage Grove.

39. **Flexibilities Summary**
    - <u>Lots Sizes</u>
        i. Detached Townhome Lots
            - 40’ Lot Width
            - Min Lot Area – 5,000 sf
        ii. Mid-Sized Single Family
            - 52.5’ Lot Width
            - Min Lot Area – 6,825 sf
        iii. Large Lot Single Family
            - 65’ Lot Width
            - Min Lot Area – 8,450 sf
    - <u>Setbacks</u>
        i. Detached Townhome Lots –
            - Side yard 5’ total of 10’
            - Rear Yard 30’
            - Front 20’ and 22.5’
        ii. Mid-Sized and Large Lot Single Family
            - Side 6.25’ total of 12.5’
        iii. Driveway
            - 5’ from side yard
    - <u>Street Lights</u>
        i. Extend maximum distance beyond 250’ to a distance that keeps street lighting

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to a reasonable level suggest in or around 300'.

- Per Lot Landscaping & Street Tree Spacing Requirements
  i. Flexibility to modify landscaping requirements as described above in detail.

- License Agreements for Landscape Maintenance
  i. Looking for the HOA to maintain public areas with a license agreement between the City and the HOA.

- Monument Height
  i. Extending monument height to 12'

- Early Model Home Permits
  i. 6-8 early model home permits.

- Gravel Home Access
  i. Ability to build homes with gravel access if construction timing does not work out as planned.
- Master Development Agreement
  i. This may be your practice, but if not, we would ask that we create a master development agreement that will guide the first phase and all subsequent phases of the development. There will still be development agreements with the specific of each phase of development but the terms and costs will be clarified in a master agreement which should help speed up and streamline future approvals for both of us.

- Tree Preservation
  i. Following the flexibilities provided for in the Pre-Development Agreement

40. **Conclusion** – We are pleased with the changes we have made to the previously approved Mississippi Landing plans and are excited to bring this neighborhood to Cottage Grove. We look forward to presenting our plans and answering any questions you may have.

City of Cottage Grove
Planning Commission
December 18, 2023

The Regular Meeting of the Planning Commission was held at Cottage Grove City Hall, 12800 Ravine Parkway South, Cottage Grove, Minnesota, on Monday, December 18, 2023, in the Council Chamber and telecast on Local Government Cable Channel 16.

Call to Order

Chair Frazier called the Planning Commission meeting to order at 7:00 p.m.

Roll Call

Members Present: Pradeep Bhat, Ken Brittain, Jessica Fisher, Evan Frazier, Eric Knable, Derek Rasmussen, Emily Stephens

Members Absent: None

Staff Present: Emily Schmitz, Community Development Director; Mike Mrosla, Senior Planner; Conner Jakes, Associate Planner; Amanda Meyer, City Engineer; Crystal Raleigh, Project Engineer; Tony Khambata, City Council Liaison

Approval of Agenda

Rasmussen made a motion to approve the agenda. Fisher seconded. The motion was approved unanimously (7-to-0 vote).

Open Forum

Frazier opened the Open Forum and asked if anyone wished to address the Planning Commission on any non-agenda item. No one spoke. Frazier closed the Open Forum.

Chair's Explanation of the Public Hearing Process

Frazier explained the purpose of the Planning Commission, which serves in an advisory capacity to the City Council, and that the City Council makes all final decisions. In addition, he explained the process of conducting a public hearing and requested that any person wishing to speak should go to the microphone and state their full name and address for the public record.

Public Hearings and Applications

6.1 Lumbermen's Outdoor Storage – Case CUP2023-021

Lumbermen's, Inc., with approval from NorthPoint Development, has applied for a Conditional Use Permit to allow for the outdoor storage of materials incidental to the principal use at 7601 100th Street South. The materials will be fully screened by a 6-foot tall privacy fence that will enclose 25,000 square feet of the southwest parking area to be used for material storage.

Jakes summarized the staff report and recommended approval subject to the conditions stipulated in the staff report.

Rasmussen said we got an email referencing a five-story building; he asked is there any new planned development to the immediate south or something. He's not sure what they were talking about, what's visible from this five-story building. Jakes replied that email was referring to the Norhart development, a five-story apartment building to the west of the building site. This was something that was discussed through the development application, thinking about site lines. The industrial development and outdoor storage, if approved, would already be in place prior to tenants moving into that building. So, they would be aware of onsite activities prior to renting the units. As part of NorthPoint's original approvals, they submitted a detailed landscape plan and they've planted numerous trees on the western property line. Other trees have the potential to be removed as part of the Norhart project, but as these trees mature it's staff's understanding that those would also screen.

Frazier stated if the applicant has anything to add, they can step to the podium.

Tom Hysong stated he's the Operations/Transportation Manager for this location. He stated they're based in West Michigan, we sell building supplies, and we're very excited to be moving into this market, as it's a new market for them, and they're excited for the opportunities here.

Fisher asked, you're leasing this space; when and if you ever decide to not lease anymore, would you take the fence down and take it with you. Ryan Zickel, Development Manager, North-Point Development, 3315 North Oak Trafficway, Kansas City, Missouri, replied typically through our re-leasing process, hopefully we push for the renewal and get them to stay for 20 years. In the off chance that they don't, that will be considered as a re-leasing opportunity, which increases marketability to future tenants. We will potentially remove it, just depending on market conditions at that time.

Fisher asked staff if somebody else takes it over, would another Conditional Use Permit (CUP) have to be issued for the use of that storage area. Jakes replied the CUP runs with that land, so that would allow for that storage area. However, he noted in the conditions of approval, there is a condition that states if that storage area isn't utilized for more than 12 months, upon written notification of the City, we could require that fence to be removed.

Bhat asked what would happen if it wasn't used and the fence was removed, would it go back to being a parking lot or what would be the status of that area. Zickel stated that's correct, it would just go back to being a standard parking lot. Any holes that would be left from fenceposts would be filled, asphalt repair would be completed, and it would be in like-new condition so that we could re-lease it.

Rasmussen stated he's curious with the large pallets of material that you're getting in there, how do you get them in there with two eight-foot gates. Hysong replied if the gate's like this, we take the forklift and swing the pallets in, or we lift them and just go up and over the top of the fence; the forklifts will go higher than the fence.

Frazier stated that might have answered one of his questions. The letter we referenced talked about maybe a covered storage area. He's assuming one of their concerns would be being able to get the forklifts in there then, if they go over, but he asked if there were other concerns about

if it was going to be required to be a covered storage area, from your point of view. Hysong replied he didn't think so.

Fisher asked with the building that it is in, are there walls already kind of sectioning off each space, as this one has three separate spaces. Zickel stated absolutely, that's a great question. Fisher asked, so, there was a wall already there; Zickel replied it's currently being built in place, within the building. Fisher stated her only thought, when she was reading through this, was that seems like a really large outdoor storage space. So, why would somebody just not lease more of the building, but if there's already a wall constructed in there, then that answers that question. Zickel stated that wall kind of lines up on the previous plan with the edge of the outdoor storage to maximize the space that they can use.

Frazier opened the public hearing. No one spoke. Frazier closed the public hearing.

Frazier stated he had another question. Two of the requirements that we look for in a CUP are that the use won't be detrimental to the public comfort and that it won't impair the enjoyment of nearby property or diminish values within the neighborhood. So, with a concern noted in an email that's going to be made part of the record of this, a resident was concerned about people having an apartment that's facing this open storage area. How do we kind of weigh that, then, as part of diminishing the use or enjoyment of a nearby property. Jakes replied when we talk about the full picture of enjoyment, part of that relates to noise, and there are noise standards in place. It is an industrial use, so there would be trailer parking. Weighing that vs. outdoor storage is somewhat similar, they're still storing, whether it's trailers vs. materials on site. It doesn't necessarily change how we refer to the CUP, taking that into account; he noted that generally we have an industrial site and then we stage down through residential Zoning Districts. He would say it's something quite standard where we have an R-6 butting up to an industrial use, throughout the City, in the past.

Rasmussen asked previous to this fence, where its currently going is currently designated and approved for tractor-trailer parking, correct. Jakes replied, yes, that's correct.

Frazier stated he has some concerns, especially with the resident pointing out that this is going to be right next to an apartment complex, where presumably some of these apartments will overlook the storage area. He thought it was a good point that Rasmussen made that if it wasn't going to be a storage area, it would be tractor-trailer parking. So, what's the difference between those two uses; in his point of view a CUP would be appropriate for outdoor storage at this time.

Fisher asked do we know if this apartment building is actually being constructed because it would not be shocking to see an application come through and it never comes to fruition. So, here we are trying to decide a hypothetical person renting a hypothetical apartment in a hypothetical building that's not yet been built. Here we have people who are following the law and asking a reasonable ask. She feels considering all the hypotheticals, it seems a little strange to her. Schmitz stated the Norhart project has its approvals; they are still working to continue to move forward, so we very well might see that construction happening in 2024. Regardless, the site is zoned R-6 for that high density; so whether or not it's the Norhart project, of course we would hope that another project comes to fruition and would be that same density. Fisher stated right, and she's not implying that she doesn't want the apartments there, that's not what she's saying. She's just saying that that's in the future, and who know what will actually start happen-

ing there. She stated, personally, she'd rather look at shingles than a bunch of trucks, but that's just her thought.

Fisher made a motion to approve the Conditional Use Permit subject to the conditions stipulated in the staff report. Rasmussen seconded. Motion passed unanimously (7-to-0 vote).

6.2 Roers Companies Apartments – Case PP2023-020, SP2023-020, PUD2023-020

Roers Companies has applied for a Site Plan Review, Planned Unit Development (PUD), and Preliminary Plat for a proposed 144-unit mixed-income apartment building to be located at 6850 East Point Douglas Road.

Mrosla summarized the staff report and recommended approval subject to the conditions stipulated in the staff report. He asked Assistant City Engineer, Crystal Raleigh, to speak further about traffic, a major talking point at the Neighborhood Meeting; she spoke about the site access and traffic study.

Fisher said Raleigh mentioned that the intersection didn't warrant a change; she asked what is the threshold and what would warrant a change there. We've had discussions about that particular spot, and O2B Kids is theoretically going in there; that intersection is not a nice spot and wondered when it would be addressed. Raleigh stated there are many different factors that contribute to those intersection warrants, such as traffic volumes, but also sight distance and elements like that. We took the O2B Kids' traffic study, which was a significant study for that intersection, which had incorporated a multifamily development on this parcel. The development that's being proposed is a bit bigger, so we had an addendum to the traffic study from the O2B Kids; even with the additional traffic that's generated by this development, those various warrants still were not met. Fisher asked what the warrants are, though, what are the thresholds; is it close, is it like a hair under. To her, that's the biggest thing she's worried about; obviously, that road can handle it, but with that little bitty intersection, she already thinks that road is a little bit of a nightmare. She doesn't know if she's the only one who thinks that, but that's her biggest concern with it. She doesn't know if anyone can answer that question, what the threshold is. Meyer stated there's a variety of criteria that needs to be evaluated, whether or not an all-way stop is considered. If it would be warranted for a signal, we could do an all-way stop as a temporary measure. There are other things revolving around five or more crashes reported in a 12-month period, susceptible to correction by an all-way stop. There are also items related to vehicular volume, so, the number of vehicles per hour in an eight-hour timeframe. It's also about the speed, the approach speed of vehicles; if traffic is exceeding 40 MPH for the 85th percentile, so the majority of traffic exceeding a specific speed limit approaching an intersection. There are four different criteria that we would analyze; it's really about the number of vehicles within a specific timeframe, definitely the crashes, and just if speeds are increasing and really having to evaluate that intersection from a safety perspective. Meyer stated unfortunately it's not a black-and-white answer.

Brittain asked about the pipeline easement. Is the parking lot over the pipeline easement; if so, how does that work. Is it because its not necessarily building a permanent structure, that they can dig it up if they need to; how does that play into things. Mrosla replied that is exactly correct. There is absolutely no build within that easement, that's clear. They cannot go past this line, so they cannot build, but they can build a parking lot in there. However, the biggest thing that the

applicant is working with them on is grading in there. The pipeline owner wants a specific depth between the pipeline and the surface; so, the applicant is working closely with them on that. With conversations he's had with the applicant, the primary area that they're working on with the pipeline owner is circled on the screen; that's the area where they're trying to get that depth to the right area. Brittain asked if that depth is intended to be such that the weight of the car traffic and parking, etc. doesn't interfere with the pipeline's operation or determine feasibility. Mrosla replied no, the depth is for maintenance; they want to make sure they have easy access for maintenance. They don't want to dig too deep so if something happens, they can get in there and resolve the matter quickly. It's worth noting, too, that there is going to be a permanent easement in here to allow for access into that site. Also, they can access off of Highway 61 if there ever comes a time they have to access the pipeline. The applicant has been working really closely with the pipeline on this because it kind of hinges on that; so far, they have identified Flint Hills' support of it, however, they're still working on some minor aspects of that.

Stephens stated it said due to site constraints, the applicant is unable to plant the required amount of trees in a practical way. However, they're proposing to plant over 400 shrubs; she thinks everybody knows that trees have different benefits than shrubs. What are the site constraints, and what happens when they cannot meet the tree requirement. Mrosla replied part of the constraints on site is the pipeline easement itself. They don't want roots going into that. He won't be shocked as the planning gets to the process that the number of trees near the parking lot will probably be removed, as he can imagine they will not want those going in that area. So, he can see modifications there. The shrubs go lower into the soil; however, he's not a landscape architect. He doesn't know if the applicant is able to address that a little bit better. He asked the applicant to address the landscaping, on why some of the plantings are proposed in the areas on the plan. Stephens stated let's say they aren't able to meet the requirements; didn't we recently update our Code that they have to pay some sort of fee so we can plant the trees elsewhere. Mrosla stated that's something he has discussed with the applicant. If they're unable to plant those trees on site, they have brought up the possibility if there is a fund they can pay into in order to meet that number. That's something we're working on. As a condition of approval, we require seeing a final landscaping plan prior to the issuance of a building permit; however, the applicant realizes that is a standard, we addressed that with him, that we like to see that number come up. However, we understand the site constraints with the pipeline. Mrosla stated he'd let the applicant talk more about where they are in revising the plan.

Frazier stated he made a note of the applicant speaking, but before we get to that, we'll finish questions from the commissioners.

Fisher stated back to the parking lot, let's say that Flint Hills has to access the pipeline; is there going to be some sort of written document saying who tears it up, who puts it back together, all of those different things. Mrosla replied that the applicant will have to enter into an encroachment agreement with Flint Hills; that agreement will specify in case of an emergency how cars will be moved, etc. He knows the applicant has to work with the tenants to notify them in case an emergency happens that they can move cars. That's the worst-case scenario, as there are easements all over the place. It's the applicant's responsibility to work with their tenants on that.

Bhat asked regarding their request for increasing the height of the building. He wasn't sure who should answer this question, maybe the applicant, but can't they change the footprint of the building. They have the horseshoe shape, they can maybe take out the sides or maybe the bottom U there, and thereby decrease the height. Mrosla stated he'd let the applicant address

that question, as he believed they had their architect here. They can talk about the site plan and how they reconfigured it.

Rasmussen stated just to clarify, The Legends of Cottage Grove is two buildings, it's not the White Pine, it's the one next to it. Mrosla replied White Pine are the two buildings adjacent to the property; The Legends is a larger facility a little bit down the road. Rasmussen stated all right, so from an elevation standpoint, The Legends is the tallest building in that grouping, and this one will be slightly below that. Mrosla replied yes, and it's also worth noting that we have contacted White Pine, with emails, phone calls, we've knocked on doors; we've done everything we can to try to get input, but we have not heard anything. So, we followed the normal procedures with every application, but to this point, we have not heard any comments or any concerns. He knows the applicant has reached out as well, trying to get their input.

Frazier asked if the applicant would like to step to the podium.

Travis Fauchald, Development Associate, Roers Companies, 2 Carlson Parkway, Plymouth, Minnesota, 55447, stated they're a multifamily developer and have been around for just about 11 years. They predominantly do affordable housing and new construction projects in and around the Twin Cities and all over the country. Here, we're proposing a workforce project, with a number of units being unrestricted, at market-rate rents, 20 percent of units at 60 percent AMI, and 5 percent of units at 50 percent AMI. We're really excited to present this project, as we think it meets a lot of the City's goals in the Comprehensive Plan. It is quite a challenging site, which is why we're seeking some flexibility here. With our landscaping plan and tree count, the site is constrained; on the north part of the site, over by White Pine and the park land to the north, there's a really sharp hill. What we're ultimately doing to get to the 144 units is having to carve out a little bit, so, we're proposing a retaining wall that is just north of our building that will run alongside the trail. That is kind of the site constraint to the north, and we want to plant trees and conserve trees on that hill, but also plant trees in a place that they're going to survive. The site constraints on the south part of the site are an access easement he believes that's granted to the City to allow access to the stormwater on the northwest part of the site; he doesn't believe a meaningful number of trees can be planted there. In the stormwater, we are unable to plant there, and are unable to plant a certain type of tree that is in that gas pipeline easement. Mrosla has provided feedback to our design team, and we'll certainly be working to get as many trees as we can to set them up for long-term success. Otherwise, we'll find a way that will be satisfactory to the City to make sure we're paying our fair share to meet Code with the trees. So, there will be some revisions made to the landscaping plan, and we'll make sure that's in a spot that works for everyone, prior to formal approval.

Fauchald addressed comments on the gas pipeline easement. If something were to go wrong, we would obviously preserve the right to have Flint Hills' repair team into the site. We'll preserve and record an easement that will provide them access to make sure nothing is ever going to be in the way of their access to the pipeline. If something were to go wrong, they would need their excavators to come in and repair it; ultimately, that would be our expense. Once the pipeline is fixed, we would as a long-term owner operator, repair that and redo the parking lot if anything were to happen, God forbid it doesn't.

Fauchald stated they're long-term owner operators; they have an inhouse property management company that will manage this site so we're not going anywhere. We're hoping to be really good partners, neighbors, and really good members of the community.

Fauchald stated on the building height, they're seeking a height variance due to the site constraints mentioned earlier. Ultimately, we are unable to expand our building footprint and increase the parking garage horizontally as we are constrained by the site boundary and the hill; we would have to dig out a lot more of the site, which is really expensive, and we're really unable to go south or west with our site line. With that gas pipeline easement, we are unable to go further down to get more underground parking as there is bedrock underneath the surface. Those are the site constraints we're working with to ultimately get to 144 units. If we were to remove a floor from our building and go a story shorter, the project, unfortunately, wouldn't be financially feasible. So, that's the background as to why we are building it at that height.

Fauchald stated he'd be happy to answer any other questions. Our local architects, Kass-Wilson are here, they've done other projects in Cottage Grove. Loucks is our civil engineer and landscape architect. So, if there are any questions he can't answer, he'll defer to the experts. Fauchald stated he appreciated their time and thanked them for their consideration.

Frazier asked if there were any questions for the applicant.

Rasmussen said with Fauchald's experience with this development type, is it worth giving a little flexibility to 1.5 cars per unit; he asked if he's pretty comfortable with that, that you're going to be able to handle all of your parking at peak times. Fauchald replied yes, as across our other projects in the State of Minnesota, at this market rate or workforce project type, we see fewer drivers with those affordable units. Oftentimes, with one-or-two bedrooms, we see a single parent or parents with children; so, there might be only one driver or no drivers. Ultimately, there are some site constraints, but we have done projects at a lower parking count. We're trying to get 1.5 and we will not provide anything less than that. As a long-term owner operator, we want to set this project up for success. Our property management team and the neighbors are not going to tolerate on-street parking. We feel comfortable there, we would like to propose something that's going to work for us as well as the community. We've done projects at lower parking ratios, but ultimately feel comfortable at 1.5.

Frazier opened the public hearing. No one spoke. Frazier closed the public hearing.

Rasmussen stated he knew this was a pretty challenging site, kind of a specialty site with high visibility, so it's very important to our community. It seems like this fits in there pretty well, and they've done a pretty good job working with the site constraints, so he thinks it will be a good fit.

Stephens stated she'd just add with all of her tree questions that it's nice to see that you're also asking for reduced parking. Many times we see tons of extra parking, but then there's not enough room for trees or stormwater. So, she thinks it's nice to see that in general you are actually constrained, and it seems like you're doing what you can to fit in what you can.

Frazier stated when he was reviewing this, the thing that jumped into his head was it's interesting that some of these things that they're asking for, they're not just asking for a variance, because he thinks there's probably the factor there to get a variance. Instead of that, the applicant worked with the City to do a PDO so it benefits everybody; the City's getting some of the things that we would like to see out of this project and you're getting some flexibility. So, he thinks that's also a good sign for a continuing relationship with the City and the community is that this

isn't a we just need help, it's a how can we make this work for everybody. He appreciates that, too. Stephens asked if he meant a PUD; Frazier said yes, maybe he said PDO.

Brittain made a motion to approve the preliminary plat, site plan review, and planned unit development for a proposed 144-unit mixed-income apartment building subject to the conditions stipulated in the staff report. Rasmussen seconded. Motion passed unanimously (7-to-0 vote).

Approval of Planning Commission Minutes of October 23, 2023

Knable made a motion to approve the minutes of the October 23, 2023, Planning Commission meeting. Fisher seconded. Motion passed unanimously (7-to-0 vote).

Reports

8.1 Recap of November and December 2023 City Council Meetings

Schmitz provided a summary of actions taken at the City Council meetings on November 1, November 15, and December 6, 2023.

Director Schmitz wished the Planning Commissioners a happy holiday season and stated she was glad we were able to get back together before the end of the year. Before we know it, we'll be in 2024, and we look forward to more big things.

Khambata thanked Schmitz. stated Frazier had said PDO but that shows his length of tenure, because we don't use that term anymore. PUD and PDO are kind of synonymous, Planned Development Overlay vs. Planned Unit Development. He caught that and it's okay. He announced there is a new Council Member, Monique Garza, who was sworn in at our last meeting. She's lived in our community for nearly ten years, she's got a husband and kids in the community. She's responsible for Movies with Mo, the outdoor movies that we host in Highlands Park in the summertime, so she's been active in volunteering in our community. She's really looking forward to being able to help make a difference on the Council as well. He thanked the Planning Commissioners again for their time; he knows December especially gets to be busy for a lot of people, and he's glad that he got to see all of their lovely faces again. With that, he said he'd stand for any questions that they might have.

Frazier thanked Council Member Khambata, and said PDO is etched into his brain, and so it will never change. He will try, but he can't make any promises. He asked if there were any questions for Council Member Khambata, but none were asked.

8.2 Response to Planning Commission Inquiries

Frazier stated we had some inquiries from our October meeting. We received an email approximately a week later with those responses, so he'll consider that filled.

8.3 Planning Commission Requests

None.

Adjournment

Rasmussen made a motion to adjourn the meeting. Brittain seconded. Motion passed unanimously (7-to-0 vote). The meeting was adjourned at 8:04 p.m.